A37261 Sequence 1
MS9255 Human carci
AX705381 Sequence
AX822351 Sequence
AX82291 Sequence
AX82291 Sequence
AX82249 Sequence
AX822419 Sequence
AX822480 Sequence
AX825480 Seque

--3

```
unclassified.

unclassified.

Loases 1 to 472)

S Henderson, D.R., Yu, D.C. and Lamparski, H.G.
Adenovirus vectors containing heterologous transcription regulatory elements and methods of using same
Loatroow INC
CALYDON INC
OS Unidentified
PP J-2002514074-A/7
PD 14-MAY-2002
PP 03-MAR-1998 JP 1998538674
PP 03-MAR-1999 US 60/039762, 03-MAR-1997 US 60/039763 PR
O4-MAY-1997 US 60/054523, 02-MAR-1998 US
O4-MAG-1997 US 60/054523, 02-MAR-1998 US
CINIS/86, CIRNS/10, A61K48/00, A61K47/48, CIRN11/08 CC Strandedness:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 472 bp DNA linear PAT 17-JUL-2003
Adenovirus vectors containing heterologous transcription regulatory
BD195486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Adenovirus vectors containing heterologous transcription regulatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         elements and methods of using same
Key
Location/Qualifiers
source
/organism='Unidentified'
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 472; DB 6; 1
100.0%; Pred. No. 5.8e-143;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ALIGNMENTS

    .472
    /organism="unidentified"
/mol_type="genomic DNA"
/db_xref="taxon:32644"

AX822164
AX825804
AX3261
HUMCEA01
AX705383
AX705383
AX705383
AX822351
AX825991
HSCGM2PRO
                                                                                                                                                                                                                                                                                                                                                                                                                   AC005626
AC011513
HUMCEANCA
                                                                                                                                                                                                                                                                                                                            AX825992
AX822480
AX826120
                                                                                                                                                                                                                                                                                                                                                                                              HUMCEAAB2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AC005955
AC005794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AC004559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BD195486.1 GI:33005256 JP 2002514074-A/7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Topology: Linear;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2450
39801
44332
                                           3281
3281
3500
3500
4138
4138
4138
4138
4138
4138
4138
                                                                                                                                                                                                                                                                                                                                                                                                                   39233
40520
2073
38235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Singl
  4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
4455.8
44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     128.8
120.8
120.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                នួន
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                김물물당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 1
BD195486
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
    υu
                                                                                                                                                                                                                                                                                       00000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 υυ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AR451687 Sequence
AR451733 Sequence
AR451733 Sequence
AR134885 Sequence
AR134885 Sequence
AR136304 Sequence
AR479027 Sequence
AR479027 Sequence
AR479027 Sequence
AR479027 Sequence
AR56130 Sequence
AR56130 Adenoviru
BD24258 Adenoviru
AR26427 Sequence
AX263299 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BD195486 Adenoviru
BD195520 Adenoviru
                                                                                                                                           December 11, 2004, 04:01:33 ; Search time 3521 Seconds (without alignments) 6339.318 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                              472

1 AGCCACCACCAGTGAGCCT.....ACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                          9053458
                    GenCore version 5.1.6
(c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                            4526729 segs, 23644849745 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                   hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                    - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HSCRCANTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BD195520
AR451687
AX705342
AX134885
AR132304
AR370519
AR370519
AR370519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BD195539
BD224258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AX25954
AX262359
AC008999
HSCEATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AR266427
                                                                                                                                                                                                                                                                                                                         IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ВВ
                                                                                                                                                                                                                                         US-10-045-116-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9b_ba:*
9b_htg:*
9b_on:*
9b_on:*
9b_ov:*
9b_bt:*
9b_pt:*
9b_pt:*
9b_ro:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3500
11288
11288
11288
11288
11288
115056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15056
15066
15066
15066
15066
15066
15066
15066
15066
15066
15066
15066
15066
                                      Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GenEmbl: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0.000.0
0.000.0
0.000.0
0.000.0
0.000.0
0.000.0
0.000.0
0.000.0
0.000.0
0.000.0
0.000.0
0.000.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13::::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Post-processing:
                                                                                                                                                                                                                                                                                                                                                                                                                                       rotal number of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                       OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Database :
                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                  Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ģ
```

ပ္ပ

```
Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unknown.
                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                          121
                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 3
AR451687
LOCUS
DEFINITION
ACCESSION
VERSION
VERSION
CEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
TITLE
JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                               셤
                                                                                                          ò
                                                                                                                             ద
                                                                                                                                                                             ద
                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                            8
                                                                                                                                                        ઠે
                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BD195520.

BD195520.

BD195520.

BD195520.

BD195520.

BD195520.

BD195520.

JP 2002514075-4/1.

SM unidentified

unclassified.

Lamparski, H.G., Henderson, D.R. and Schuur, E.R.

Adenovirus vectors specific for cells expressing carcinoembryonic antigens and methods of use thereof

Adenovirus vectors specific for cells expressing carcinoembryonic antigens and methods of use thereof

BLANDON INC

CALYDON INC

ON Unidentified

NN JP 2002514075-A 1 14-MAY-2002;

CALYDON INC

SON Unidentified

NN JP 2002514075-A/1

PP 14-MAY-2002

PP 03-MAR-1998 US 60/039763, 02-MAR-1998 US 60/039763 PI

HENRY G LAMPARSKI, DANIEL R HENDERSON, ERIC R SCHUUR PC

CLI2015/66, CALSOF/10, A6IK48/00, A6IK47/48, C1201/70, C12011/08 CC

Strandedness: Double;

CC and methods of use thereof

PH Key Location/Qualifiers

FT source

//organism='Unidentified'.
                                                                                                                                                                                                                                                                                                                                                                                                                                       472 bp DNA linear PAT 17-JUL-2003 Ademovirus vectors specific for cells expressing carcinoembryonic antigens and methods of use thereof.
 ö
                                                                       120
                                                                                                                      180
                                                                                                                                                                       240
                                                                                                                                                                                              240
                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                             420
                                                                                    GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG 120
                                                                                                                                   121 TTTCTCTGTCACAAAGGAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG 180
                                                                                                                                                                                                                      GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGAGGACAAAAGA 300
                                              9
                        9
                                                                                                                                                                                   CAGAGGTCAGCACTGGGGAAGACAGGTTGTCCTCCCCAGGGGATGGGGGTTCATCCACCTT
                                                                                                                                                                                                                                   GGCAGAAATGAGAGGGGAGGGACAGAGAGACCTGAATAAAGACCACCCATGACCC
                                                                                                                                                                                                                                                                                                                                      CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCCAGGGCAGAGGAGGAGGACA
                                              1 AGCCACCACCAGGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                       GCCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                     TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                      CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGAGGAGGACA
 Gaps
                                                                                                                                                                                                                                                                                                                                                                    GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                 GCAGACCAGACAGTCACAGCAGCCTTGACAAACGTTCCTGGAACTCCAGGCA 472
ö
Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism='Unidentified'
Location/Qualifiers
..
0
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .472
/organism="unidentified"
/mol_type="genomic DNA"
/db_xref="taxon:32644"
ö
472; Conservative
                                                                      61
                                                                                              61
                                                                                                                      121
                                                                                                                                                                      181
                                                                                                                                                                                              181
                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 2
BD195520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                     ò
                                                                                         셤
                                                                                                                                       ద
                                                                                                                                                                  ઠે
                                                                                                                                                                                     <u> የ</u>
                                                                                                                                                                                                                                       සු
                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                       용
                                          셤
                                                                                                               ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                 120
                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCCGGGACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                   GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGATGGGGAGACCCGGGGACCCTGCTGGG
                                                                                                                                                                                                                            TTTCTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                         GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGGGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                  GGCAGAAATGAGAGGGGAGGGACAGAGGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCAGAAATGAGGGGGAGGGGACAGAGGACACCTGAATAAAGACCACACCATGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCCACCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCTGTTG
                                                                                                              1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                     CAGAGGICAGCACTGGGGAAGACAGGITGTCCTCCCAGGGGATGGGGGTCCATCCACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                   Gарв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCAGACCAGACACTCAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PAT
                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
100.0%; Score 472; DB 6; Length 472;
Best Local Similarity 100.0%; Pred. No. 5.8e-143;
Matches 472; Conservative 0; Mismatches 0; Indels
   Length 472;
                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
Query Match
100.0%; Score 472; DB 6; I
Best Local Similarity 100.0%; Pred. No. 5.8e-143;
Matches 472; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tobases 1 to 472)
Henderson, D.R. and Schuur, E.R.
Tissue specific adenoviral vectors
Patent: US 6676935-A 7 13-JAN-2004;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    472 bp
Sequence 7 from patent US 6676935.
AR451687.
AR451687.1 GI:42682802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .472
/organism="unknown"
/mol_type="genomic DNA"
                                                                          1 AGCCACCACCAGTGAGCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unclassified.
```

us-10-045-116-1.rge

셤

ò

a

ઠે

셤

ઠે

g

셤

ઠે

ઠે

```
2565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2865
                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                               04-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PAT 16-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                              Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2806 GGCAGAAATGAGAGGGGAGGGGACAGAGACACCTGAATAAAGACCACACCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2506 AGCCACCCACCCAGTGAGCCTTTTTTTTAGCCCCCAGAGCCACCTCTGTCACCTTCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2626 TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACGACCAAGGACAGAAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2686 CAGAGGTCAGCACTGGGGAAGACAGGTTGTCCTCCCAGGGGATGGGGTCCATCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2746 GCCGAAAAGATTTGTCTGAGGAACTGAAATAGAAGGGAAAAAAGAGGAAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAAGACCCGGGACCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2566 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCCGGGAGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTCTCTGTCACAAAGGAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCAGAAATGAGAGGGAGGGGACAGAGACACCTGAATAAAGACCACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 AGCCACCACCAGCCAGGGGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
 472
                          472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2926 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 2976
                                                                                                                                                                                           'Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Butele
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo
                                                                                                                                                                                                                                 Distler,J., Model,F. and Taubert,H.
Method and mucleic acids for the analysis of colon cancer
Patent: WO 03014388-A 11 20-FEB-2003;
Epigenomics AG (DE)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421 GCAGACCAGACACTCACAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                               PAT
                                                                                                                                                                                                                                                                                                                                                                                                                     ö
               421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA
  GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA
                                                                                                                                                                                                                                                                                                                                                                                          Length 3500;
                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                       Query Match
99.8%; Score 471; DB 6; Le
Best Local Similarity 100.0%; Pred. No. 1.6e-142;
Matches 471; Conservative 0; Mismatches 0;
                                                                                               DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA

    .3500
    /organism="Homo sapiens"
    /mol_type="unassigned DNA"
    /db_xref="taxon:9606"

                                                                                            AX705342 3500 bp Sequence 11 from Patent WO03014388. AX705342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11288 bp
from patent US 6194211.
                                                                                                                                    AX705342.1 GI:29562007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GI:14123790
                                                                                                                                                            Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AR134885
Sequence 1 f
AR134885
AR134885.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                  RESULT 5
AX705342
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 6
AR134885
LOCCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                      PAT 20-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                           240
                                                     300
                                                                               300
                                                                                                            360
                                                                                                                      420
                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GECATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCGAAAAGATTIGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGGGGGGGGCGACAAAAGA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 GGCAGAAATGAGAGGGGGAGAGAGAGACACCTGAATAAAGACCACACCCATGACCCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ITTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCAGAAATGAGAGGGAGGACAGAGGACACCTGAATAAAGACCACACCATGACCCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                    GGCAGAAATGAGAGGGGAGACAGAGGACACCTGAATAAAGACCACCCATGACCCA
                                                                                                                                                                             TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGAGGICAGCACIGGGGAAGACAGGITGICCICCCAGGGGAIGGGGGICCAICCACCTI
                 1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                       472
                                                                                                                                                                                                                                                  472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                    Query Match 100.0%; Score 472; DB 6; Length 472; Best Local Similarity 100.0%; Pred. No. 5.8e-143; Matches 472; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                              Tobases 1 to 472)
Henderson, D.R. and Schuur, B.R.
Tissue specific adenoviral vectors
Patent: US 6676935-A 54 13-JAN-2004;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                  AR451733 472 bp
Sequence 54 from patent US 6676935.
AR451733
AR451733.1 GI:42682848

    472
    organism="unknown"
    /mol_type="genomic DNA"

                                                                                                                                                                                                                                                                                                                                                                                                      Unknown.
Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                    Unknown.
                                                                              241
                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                         301
                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
181
                                                    241
                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
TITLE
JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                           RESULT 4
AR451733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
```

a

ઠે

요 ઠે

ò

셤

ઠ

g

셤

ઠે

g

g

ઠે

δ

```
Best Local Similarity
Matches 471; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unknown.
                                                                                                                               121
                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                  61
                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 8
AR370519
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                      g
                                                                                 ઠે
                                                                                                     셤
                                                                                                                            ò
                                                                                                                                                  g
                                                                                                                                                                         ò
                                                                                                                                                                                           g
                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                               ò
    SM Unknown.

Unclassified.

Unclassified.

Unclassified.

SR I (bases 1 to 11288)

RS Richards, C.Ann. and Huber, B.

R Richards, C.Ann. and Huber, B.

Aranscriptional regulatory sequence of carcinoembryonic antigen for expression targeting

NAL Patent: US 6194211-A 1 27-FEB-2001;

LOCALION/Qualifiers

1. .11288

/mol_type="unassigned DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10713
                                                                                                                                                                                                                                                                                                                                                                                                                                                            10414 TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG 10473
                                                                                                                                                                                                                                  10353
                                                                                                                                                                                                                                                                                10413
                                                                                                                                                                                                                                                                                                                                                                           10533
                                                                                                                                                                                                                                                                                                                                                                                                                         10534 GCCGAAAAGATTTGTCTGAGGAACTGAAAAATAGAAGGGAAAAAAGGAGGGGGCGACAAAAGA 10593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PAT 20-APR-2002
                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                             6
                                                                                                                                                                                                                            10294 AGCCACCCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                         GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCCGGGACCCTGGG
                                                                                                                                                                                                                                                                                                      TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 AGCCACCACCCAGGGGCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                              10354 GGCATCATCCCACCTTCCCAGAGCCTGGAGGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                    10474 cadadetcadcacrecedaadacadetrercerecededeardedegrecarecerr
                                                                                                                                                                                                                                                                                                                                                                                                   GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGAGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCAGAAATGAGAGGGAGAGAGACAGACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10714 GCAGACCAGACAGTCACAGCAGCCTTGACAAACGTTCCTGGAACTCAAGC 10764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (bases 1 to 11288)
Huber, B. and Richards, C.A.
Molecular constructs containing a carcinoembryonic antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 11288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                    Indels
                                                                                                                                                              99.8%; Score 471; DB 6; Le
100.0%; Pred. No. 1.9e-142;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 regulatory sequence
Patent: US 6337209-A 4 08-JAN-2002;
Location/Qualifiers
1. 1128
/organism="unknown"
/mol_type="unassigned DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11288 bp
US 6337209,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99.8%; Score 471;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 4 from patent t
AR182304
AR182304.1 GI:20225220
                                                                                                                                                              Query Match
Best Local Similarity 100.
Matches 471; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AR182304
  Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unknown
                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCUS
DEFINITION
            ORGANISM
                                REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AR182304
                                                                                            PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
```

```
10414 TITCICIGICACAAAGGAAAATAATCCCCCTGGIGIGACCCAAGGACAGAACACAG 10473
                                                                                                                                                                                                                      10354 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG 10413
                                                                                                                                                                                                                                                                                                                        10414 TTTCTCTGTCACAAAAGAAAATAATCCCCCTGGTGTGACAGACCCAAGACAGAACACG 10473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10534 GCCGААААGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGAGGGGGCGACAAAAGA 10593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10294 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACTCTGTGACCTTCCTGTTG 10353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10294 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACTCTGTCACCTTCCTGTTG 10353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10594 GGCAGAAATGAGAGGGGAGGGACAGAGGACACCTGAATAAAGACCACACCATGACCCA 10653
                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PAT 12-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (bases 1 to 11288)
Huber, B., Richards, C.A. and Austin, E.A.
Molecular constructs comprising a carcinoembryonic antigen (CEA)
transcriptional regulatory region
Patent: US 6300490-A 4 09-0CT-2001;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                       GGCAGAAATGAGAGGGGAGGGGACAGAGGACACCTGAATAAAGACCACACCATGACCCA
                                                                                                                                                                                                                                                                                           TTTCTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                           GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGGGGCAAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                            GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 AGCCACCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10714 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 10764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99.8%; Score 471; DB 6; Length 11288; ilarity 100.0%; Pred. No. 1.9e-142; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                              Indele
                  Pred. No. 1.9e-142; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11288 bp
Sequence 4 from patent US 6300490.
AR370519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="unknown"
/mol_type="genomic DNA"
100.08; P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AR370519.1 GI:34607246
                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 471; Conserv
```

ద

셤

ઠે

g

ò

셤

ò 셤

ò

```
10353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /protein id="CAD10114.1"
/db xref="GI:16542050"
/translation="MESPSAPPHRWCIPWQRLLLTGEGRTTWERVGGGSWGLLGRTGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                          PAT 29-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                              Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10534 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGGGAAAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGGAAAAAAGAGGGGGGCGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCAGAAATGAGAGGGGAGGGACACAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                regulation
                                        10714 GCAGACCAGACAGTCACAGCGCTTGACAAAACGTTCCTGGAACTCAAGC 10764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10714 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 10764
                                                                                                                                                                                                                                                                                                                         Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Butel
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 11288;
                                                                                                                                                                                                                                                                                                                                                                                                                                  therapy
Patent: WO 0174861-A 1 11-OCT-2001;
MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                         Vile, R.G., Harrington, K., Murphy, S. and Bateman, A. Compositions and methods for tissue specific gene
                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99.8%; Score 471; DB 6; Le llarity 100.0%; Pred. No. 1.9e-142; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1. 11288 | ... 11288 | ... 11288 | ... 11288 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020 | ... 1020
                                                                                                                                                                          DNA
                                                                                                                                                                     AX269130 11288 bp
Sequence 1 from Patent WO0174861
AX269130
                                                                                                                                                                                                                                          GI:16542049
                                                                                                                                                                                                                                                                                   Homo sapiens (human)
                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                       AX269130.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       471;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local
Matches 47
                                                                                                                                                                                          DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                               RESULT 10
AX269130
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                            KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                         ઠે
                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                              10413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10414 TITCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACAAGA 10473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10534 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGGGGGGGACAAAAAGA 10593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10294 AGCCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG 10353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PAT 14-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                            420
                                                                                        300
                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10354 GGCATCATCCCACTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGGAGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCAGAAATGAGAGGGGAGGGGACACAGAACCTGAATAAAGACCACCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTCTCTGTCACAAAGGAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCAGAAATGAGAGGGGAGGGACAGAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301 GGCAGAAATGAGAGGGGAGGGACAGAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 11288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 (bases 1 to 11288)
Huber, B. and Richards, C.A.
Molecular constructs with a carcinoembryonic antigen
transcriptional regulatory sequence
Patent: Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 99.8%; Score 471; DB 6; Lo
Best Local Similarity 100.0%; Pred. No. 1.9e-142;
Matches 471; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 4 from patent US 6699690.
AR479027

    11288 / Organism="unknown" / mol_type="genomic DNA"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AR479027.1 GI:47237926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unknown.
Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unknown.
                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10594
181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 9
AR479027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
```

g

윉

ે

δ

셤

ઠે

q

ઠે

ģ

ò

<u>``</u>6

ઠે

ò

ö

Gape

ö

```
TTHORS Lamparski, H.G., Henderson, D.R. and Schuur, E.R.

TTHORS Lamparski, H.G., Henderson, D.R. and Schuur, E.R.

Adenovirus vectors specific for cells expressing carcinoembryonic antigens and methods of use thereof

RNAL Patent: JP 2002514075-A 20 14-MAY-2002;

CALYDON INC

T OS Unidentified

PN JP 2002514075-A/20

PD 14-MAY-2007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10294 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG 10353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /codon_start=1
/codon_start=1
/product== carcinoembryonic antigen"
/protein_id="CAA79884.1"
/db_xref="GOA:011437784"
/db_xref="GOA:014081"
/db_xref="TrEM81:014081"
/db_xref="HrEN81:014081"
/db_xref="HrEN81:014081"
/translation="MESPSAPPHRWCIPWQRLLLTGEGRTTWERVGGGSWGLLGRTGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCCGGGACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITCICIGICACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15056 bp DNA linear PAT 17-JUL-200 Admovstrus vectors specific for cells expressing carcinoembryonic ED195539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301 GGCAGAAATGAGAGGGGGGGGGGCAGGAGGACACCTGAATAAAGACCACACCCATGACCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10714 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 10764
                                                                                                                                                                                                                                                 Query Match 99.8%; Score 471; DB 9; Length 11288; Best Local Similarity 100.0%; Pred. No. 1.9e-142; Matches 471; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC
/citation=[1]
10804. .10938
/citation=[1]
                                                                                                                                                                                   10868. .11288
/citation=[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                      intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 12
BD195539
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                   CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       염. 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                Schrewe, H., Thompson, J., Bona, M., Hefta, L.J., Maruya, A.,
Hassauer, M., Shively, J.E., von Kleist, S. and Zimmermann, W.
Cloning of the complete gene for carcinoembryonic antigen: analysis of its promoter indicates a region conveying cell type-specific expression
Mol. Cell. Biol. 10 (6), 2738-2748 (1990)
2342461
                                                    PRI 29-MAY-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 (bases 1 to 11288)
Striantek, C.A., Austin, E.A. and Huber, B.E.
Transcriptional regulatory sequences of carcinoembryonic antigen:
identification and use with cytosine deaminase for tumor-specific
                                                                                                                                                                   Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                 2 (bases 1 to 11288)
Richards, C.A., Wolberg, A.S. and Huber, B.E.
The transcriptional control region of the human carcinoembryonic antigen gene: DNA sequence and homology studies
DNA Seq. 4 (3), 185-196 (1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
Submitted (24-FRB-1993) Richards C. A., Burroughs Wellcome Co.,
Cell Biology, 3030 Cornwallis Rd, Research Triangle Park, North
Carolina, USA, 27709
                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Overlapping sequence: U17131.
Location/Qualifiers
1. .11288
/organiem="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="19"
/clone="lambdaCBA1"
/clone_lib="library LL19NL01 from ATCC"
                                           11288 bp DNA
H.saplens carcinoembryonic antigen gene.
221818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene therapy
Hum. Gene Ther. 6 (7), 881-893 (1995)
96097131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gernilne
520. 857
(citation=12)
/rpt_type=DisperseD
2106. 2155
/citation=12
/rpt_type=TANDEM
/rpt_type=TANDEM
/rpt_type=TANDEM
/rpt_type=7206. 2107"
2308. 2501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /rpt_type=TANDEM
/rpt_unit="2344. .2379"
6746. .6887
/citation="2]
/rpt_family="Alu"
/rpt_type=DISPERSED
10694. .11288
/citation=[1]
                                                                                                                  carcinoembryonic antigen
Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (bases 1 to 11288)
                                                                                                 Z21818.1 GI:437783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lichards, C.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3161821
                                                                                                                                                                                                                                                                                                                                                        BiteB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                              DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                      REMARK
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PUBMED
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
MEDLINE
PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  exon
                   RESULT 11
HSCRCANTA
                                                                                                                                                                                                                                                                                                    JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
FEATURES
                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                     TITLE
```

PAT 17-JUL-2003

420

ద

```
10-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCAGAAATGAGAGGGGACAGAGACACCTCAATAAAGACCACACCCATGACCCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unclassified.
1 (bases 1 to 15056)
Henderson, D.R. and Yu, D.C.
Target cell-specific adenoviral vectors containing E3 and methods
                         OS Homo sapiens (human)
DS 202525063-A/4
PD 13-AUG-2002
PF 10-SEP-1999 JP 2000570347
PR 10-SEP-1999 US 09/392822 PI
DE CHAO YU, DANIEL R HENDERSON
PC C12N15/09, AG1K48/00, AG1P35/00, C12N1/15, C12N1/19, C12N1/21, C12N5/
                                                                                                                                                       C12N7/02//A61K35/76,C12N15/00,C12NS/00
Adenovirus vectors containing cell status-specific response elements and elements end de thoreof nethods of use thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                     14062 AGCCACCACCAGTGAGCCTTTTTTTAGCCCCCAGAGCCACTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                     GGCATCATCCCACCTTCCCAGAGCCCTGGAGGATGGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PAT
                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                            Length 15056;
                                                                                                                                                                                                                           1. 15056
/organism='Homo sapiens (human)'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                           Query Match
99.8%; Score 471; DB 6;
Best Local Similarity 100.0%; Pred. No. 2e-142;
Matches 471; Conservative 0; Mismatches 0;
                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AR266427 15056 bp 1
Sequence 10 from patent US 6495130.
AR266427.1 GI:29695383
                                                                                                                                                                                                                                                                          1. .15056
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                  /mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                 Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unknown
                                                                                                                                                          SSSSEEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14242
                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 14
AR266427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                           FEATURES
                             COMMENT
                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14241
                                                                                                                                                                                                                                                                                                                                                                                                                                  14181
                                                                                                                                                                                                                                                                                                                                                                             14121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PAT 17-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Cararrhini, Hominidae, Homo. 1 (base 1 to 15056)
Yu, D.C. and Henderson, D.R.
                            PI
                                                                                                                                                                                                                                                                                                                                                               14062 AGCCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                        GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                        14122 GGCATCCACCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGAAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCAGAAATGAGAGGGGAGGGGACAGAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 AGCCACCACCAGCCATTTTTTTTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                    Gaps
                          60/039763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Adenovirus vectors containing cell status-specific response elements and methods of use thereof Patent: JP 2002525063-A 4 13-AUG-2002; CALYDON INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCAGACCAGACAGTCACAGCGAGCCTTGACAAAACGTTCCTGGAACTCAAGC 14532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        op DNA linear PAT 17-1 cell status-specific response
HENRY G LAMPARSKI, DANIEL R HENDERSON, ERIC R SCHUUR PC CI2N15/86, CI2NS/10, A61K48/00, A61K47/48, C12Q1/70, C12N11/08 Strandedness: Single; CC TOPOLOGY: Linear; CC Adenovirus Linear;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                    ö
                                                                                CC Topology: Linear,
CC Adenovirus vectors specific for cells expressing carcinoembryonic antigens
CC and methods of use thereof
EH Key Location/Qualifiers
FT source 1. 15056
FT /organism='Unidentified'.
                                                                                                                                                                                                                                                                                         99.8%; Score 471; DB 6; Length 15056;
                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                      Pred. No. 2e-142;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Adenovirus vectors containing cell st
elements and methods of use thereof.
BD224258
                                                                                                                                                                                                                                                                                               100.0%; Prea, ...
                                                                                                                                                                                  Location/Qualifiers
1.15056
/organism="unidentified"
/mol_type="genomic DNA"
/db_xref="taxon:32644"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15056 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BD224258.1 GI:33034028
JP 2002525063-A/4.
Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BD224258
                                                                                                                                                                                                                                                                                                                  471;
                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14482
                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 13
BD224258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

ઠે 셤 ઠે 셤

14181

180

ö

ઠે 셤 ò 셤 ò 셤 ò 임 ò g ð

14241

14301

240

300

```
Search
Job tim
                         셤
                                            ò
                                                                  8
                                                                                  දි දි
                                                                                                                          8 &
                                                                                                                                                                ઠે
                                                                                                                                                                                   g
                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PAT 20-FEB-2004
                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                              120
                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGAGGGACAAAAAGA 300
                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Theorem 1 (bases 1 to 15056)
Yu,D.-C., Li,Y., Little,A.S. and Henderson,D.R.
Yu,D.-C., Li,Y., Little,A.S. and Henderson,D.R.
Cell-specific adenovirus vectors comprising an internal ribosome entry site
entry site
Location/Qualifiers
1. .15056
//organism="unknown"
//mol_type="genomic DNA"
                                                                                                                                                                                                                                        CAGAGGTCAGCACTGGGGAAGACAGGTTGTCCTCCCAGGGGGATGGGGGGTCCATCTACTT
                                                                                                                                                                                                                                                                                                                                                             GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                  Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                              GCAGACCAGACAGTCACAGCCTTGACAAAACGTTCCTGGAACTCAAGC 14532
                                                                                                                                                                                                                                                                                                                                                                                                    GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                               Length 15056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 15056;
                                                                             Query Match 99.8%; Score 471; DB 6; Length 15 Best Local Similarity 100.0%; Pred. No. 2e-142; Matches 471; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 99.8%; Score 471; DB 6; Lv
Best Local Similarity 100.0%; Pred. No. 2e-142;
Matches 471; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA
of use thereor
Patent: US 6495130-A 10 17-DEC-2002;
Location/Qualifiers
1. .15056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15056 bp
Sequence 14 from patent US 6692736.
AR474484.
AR474484.1 GI:42713365
                                        /organiem="unknown"
/wol_type="genomic DNA'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 AGCCACCACCCAGTGAGCCTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unknown.
Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
Unknown.
                                                                                                                                                                                                   121
                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                          14362
                                                                                                                                                                                                                      14182
                                                                                                                                                                                                                                                            14242
                                                                                                                                                                                                                                                                                                                                                                                 14422
                                                                                                                                                                                                                                                                                                                                                                                                                       14482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
          JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                              AR474484
                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                        용
                                                                                                                                                            ò
                                                                                                                                                                              임
                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                      ሯ
                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                       움
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                       ઠ
```

```
14122 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG 14181
                                                                        420
                                                              240
                                                                                                                                     GGCAGAAATGAGAGGGGACGGACAGAGACACCTGAATAAAGACCACCCATGACCCA
                                                                                                                                                            GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGGGGGCACAAAAGA
                                                                                                                                                                                           241
                                                                                                                             301
                                                                                                                                                             361
                               121
                                                               181
61
```

arch completed: December 11, 2004, 07:58:34 bb time : 3523 Bec8

Acf62826 Colon can Adb54188 Pretreate Adb54316 Pretreate

Aaz09584 Carcinoem Aay7390 CEA clone Abk83462 Human CDN Abk83462 Human CDN Abb683462 Human CDN Abr76144 Lung canc Abx76144 Lung canc Abx76396 Lung canc Abx76396 Human CEA Acf35963 Human CAT Acf35963 Human CAT

Abg82535 Human CEA Abg60586 Human col Ad162109 Human ova

, ****

Title: Perfect score:

Sequence:

OM nucleic

Run on:

Scoring table:

Searched:

Minimum DB Maximum DB

Database

```
This 472 nucleotide fragment comprises nucleotides -402 to +69 of the human carcinoembryonic antigen transcriptional regulatory element (CEA-TRE). It was isolated from human genomic DNA by PCR (see AAVS2945-46). The CEA-TRE is capable of mediating gene expression specific to cells capable of expressing CEA or capable of CRE-TRE-mediated transcription. A calaimed transcriptional control of a CEA-TRE. Also claimed are: (1) a host under transcriptional control of a CEA-TRE. Also claimed are: (1) a host cell transformed with a Ad vector as above; (2) a method of making a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New adenovirus vectors, particularly for cancer therapy - comprising adenovirus gene under transcriptional control of carcinoembryonic antigen transcriptional regulatory element.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Carcinoembryonic antigen; transcriptional regulatory element; CEA-TRE; human; promoter; enhancer; adenovirus; vector; cancer; gene therapy; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CEA transcriptional regulatory element (CEA-TRE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Schuur ER;
                                                                                                 AAZ09584
AAZ1396
AAZ1396
ABK83462
ABK83462
ABK95819
ABX76396
ADA84058
ADA84058
ADA84058
ADA84058
ADA84058
ADA84058
                                                                                                                                                                                                                                                                                                                                                                                         ADD25525
ADN39013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABQ82535
ABQ60586
ADL62109
                                                                                                                                                                                                                                                                                                                                                                                                                                             ADM32425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADM72830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AD028644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 13; Page 62-63; 95pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US004133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97US-0039763P.
                                                                                                                                                                                                                                                                                                                                                                       2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV52944 standard; DNA; 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lamparski HG, Henerson DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-DEC-1998 (first entry)
                                                                                                                      39801
3774
39801
2974
2974
2974
2974
4138
3500
4138
4138
271
                                                                                                                                                                                                                                                                                                                                        2974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (CALY-) CALYDON INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1998-495862/42.
                                                                     12421
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
12721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9839467-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03-MAR-1997;
02-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11-SEP-1998.
                    256.6
247.8
241.4
225
120.8
                                                                                                                                                                 85.8
75
                                                                                                                                             94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAV52944;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAV52944
υυυ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aav52944 CEA trans
Adi36414 Human car
Adi36390 Human car
Adi36390 Human car
Aaq90512 CEA clone
Aav52967 Carcinoem
Aav52967 Carcinoem
Aav6851 Nucleotid
Aav46851 Nucleotid
Aav46851 Waleotid
Abk99582 Prostate-
Acd07309 Human car
Adb54000 CEA genom
Ad53109 DNA of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Aaq90511 CEA genom
Acc47273 hTERT gen
Acf62803 Colon can
Acf62825 Colon can
Adb54187 Pretreate
Acf62804 Colon can
                                                                                                                                                                                           (without alignments)
5789.081 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                          472

1 AGCCACCACCAGTGAGCCT.....ACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Description
                                                                                                                                                                 December 11, 2004, 03:58:23; Search time 428 Seconds
                                              Compugen Ltd.
                       GenCore version 5.1.6 (c) 1993 - 2004 Compug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                       4134886 segs, 2624710521 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                 - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADB54000
ADC37109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACF62825
ADB54187
ACF62804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADI36414
ADI36390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACF62762
AAQ90512
AAS14778
AAV52967
AAZ99933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACC47273
ACF62803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAA46851
AAH43620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABK99582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACD07309
                                                                                                                                                                                                                                                                                                                                                               IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  geneseqn2003cs:*
geneseqn2003ds:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    geneseqn2001as:*geneseqn2001bs:*geneseqn2002as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          geneseqn2002bs:*geneseqn2003as:*geneseqn2003bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N Geneseq_23Sep04:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          genesegn1980s:*
genesegn1990s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             geneseqn2000s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     geneseqn2004s:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                US-10-045-116-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3500
11288
11288
15056
15056
15056
15056
15056
15056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3281
14556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               425
                                           Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1000.0

1000.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

999.0

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8:
9:
10:
```

Score

Result õ 44711444711444711444711444711444711444711444711444711444711444711444

471 432.4 432.4 359.4 350.4 271.8 266.2 263

O

```
ö
masked Ad, and (3) an Ad complexed with a masking agent. By providing for transcriptional initiating regulation dependent upon CEA expression, virus replication can be restricted to target cells which allow a CEA-TRE to function, particularly carcinoma cells expressing CEA. The vectors can be used to detect and monitor samples for the presence of cells that allow a CEA-TRE to function, and to selectively kill such cells, especially malignant cells. Preferred vectors contain a CEA-TRE comprising nucleotides 313-472 or 104-472 of the 472 nucleotide fragment, especially comprising an enhancer and/or a promoter of the CEA gene
                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                    TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ds; carcinoembryonic antigen; CEA; human; prostate; transcriptional response element; TRE; polyethylene glycol; PEG; masking agent; tumour cell growth; proliferation; psoriatic lesion; wound healing; hyperplasia; cancer; cyrostatic, antipsoriatic, vulnerary.
                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                        AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTTCCTGTTG
                                                                                                                                                                                                                                                                                                       GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGAGGACAAAAGA
                                                                                                                                                                                                                                            1 AGCCACCACCAGGCGTTTTTCTAGCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                             GGCAGAAATGAGAGGGGACACACAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCAGAAATGAGAGGGGAGGACAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGAGGGAAGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human carcinoembryonic antigen transposon response element DNA SeqID7
                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCAGACCAGACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA
                                                                                                                                                                                  2; Length 472;
                                                                                                                                                    Sequence 472 BP; 142 A; 125 C; 134 G; 71 T; 0 U; 0 Other;
                                                                                                                                                                                                                Indels
                                                                                                                                                                               Score 472; DB 2; L
Pred. No. 1.6e-126;
                                                                                                                                                                                                                   ö
                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP
                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-MAY-2002; 2002US-00139089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95US-00495034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADI36414 standard; DNA; 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                Best Local Similarity 100.
Matches 472; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003152553-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-APR-2004
                                                                                                                                                                                                                                                                                                         6
                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BXLXGXLXEXEXEXCXLXCXC
    888888888888888
                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
```

```
This invention relates to a novel composition that contains a replication competent adenovirus capable of transfecting target host cells.

Competent adenovirus capable of transfecting target host cells.

Specifically, it compraises an adenoviral gene essential for replication capable.

CELA, EIB or E4), which is under the transcriptional control of a prostate specific transcriptional response element (TRE) and polyethylene composition as useful for suppressing tumour cell growth and for lowering the levels of tumour cell markers. It can also be used for introducing transient expression that may be involved in treating undesired and contains and wound healing. In addition, it is useful for detecting cells where a cell typespecific TRE is functional in a biological sample and for treating to prostate-associated diseases such as hyperplasta and cancer. As such, the such capable compositions exhibit cytostatic, antipsoriatic and vulnerary activities. This polynuclecide sequence is the human carcinoembryonic antigen (CEA) TRE DNA of the invention. NOTE: This sequence is identical
                                                                                                                                                                                                                                                                                                                               adenovirus
f cell type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGGACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCAGAAATGAGAGGGGAGGGGACAGAGGACACCTGAATAAAGACCACACCCATGACCCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCAGAAATGAGAGGGGAGGGGACAGGACACCTGAATAAAGACCACACCCATGACCCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tricricricacaaaggaaaaraarccccricgrigacagacccaaggacagaacacag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCATCATCCCACCTTCCCAGAGCCCTGGAGGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCGAAAAGATTTGTCTGAGGAACTGAAATAGAAGGGGAAAAAAGAGAGGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 AGCCACCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGAGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                               Composition comprising replication competent adenovirus having a gene essential for replication under transcriptional control of specific transcriptional response element and masking agent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 472 BP; 142 A; 125 C; 134 G; 71 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                             ER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           , DB 12;
1.6e-126;
                                                                                                                                                                                                                                                             Schuur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 472; D
100.0%; Pred. No. 1.6
tive 0; Mismatches
                                                                                                                                                                                                                                                             Henderson DR,
                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; SEQ ID NO 7; 115pp; English
96US-00669753.
97US-0039597P.
97US-0039762P.
98US-00033333.
98US-00033555.
98US-00033555.
                                                                                                                                        2000US-00509591
                                                                                                                                                                                                                                                            HG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 100.
Matches 472; Conservative
                                                                                                                                                                                          ი.
ფ
                                                                                                                                                                                                                                                            Lamparski
                                                                                                                                                                        LITTLE A S.
LAMPARSKI H G
HENDERSON D R
                                                                                                                                                                                                                                                                                          WPI; 2004-119002/12.
                                                                                                                                                                                                                            SCHUUR E R.
   26-JUN-1996;
03-MAR-1997;
03-MAR-1997;
03-MAR-1997;
                                                                   02-MAR-1998;
02-MAR-1998;
02-MAR-1998;
10-SEP-1998;
                                                                                                                                        02-JUN-2000;
                                                                                                                                                                                                                                                             AS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                        (LITT/)
                                                                                                                                                                                                                          (SCHO/)
                                                                                                                                                                                                          (HEND/)
                                                                                                                                                                                          (LAMP/)
                                                                                                                                                                                                                                                             Little
   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
```

180

180

120

9

240

300

us-10-045-116-1.rng

```
61
                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACF62762;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACF62762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
      88333
                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                             ď
                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This invention relates to a novel composition that contains a replication competent adenovirus capable of transfecting target host cells.

Specifically, it comprises an adenoviral gene essential for replication (EIA, EIB or E4), which is under the transcriptional control of a prostate specific transcriptional response element (TRE) and polyethylene glycol (FEG) as the masking agent. The present invention describes this composition as useful for suppressing tumour cell growth and for lowering the levels of tumour cell markers. It can also be used for introducing the levels of tumour cell markers. It can also be used for introducing proliferations other than tumours, such as psoriatic lesions and wound healing. In addition, it is useful for detecting cells where a cell type-specific TRE is functional in a biological sample and for treating prostate-associated diseases such as hyperplasia and cancer. As such, these compositions exhibit cytostatic, as human carcinoembryonic
                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Composition comprising replication competent adenovirus having adenovirus gene essential for replication under transcriptional control of cell type specific transcriptional response element and masking agent.
                                                                                                                                                                                                                                                                                                                                                                                                                    ds; CEA; carcinoembryonic antigen; human; prostate; transcriptional response element; TRE; polyethylene glycol; PEG; masking agent; tumour cell growth; proliferation; psoriatic lesion; wound healing; hyperplasia; cancer; cytostatic; antipsoriatic; vulnerary.
                      GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                             SeqID 54.
                                                                                                                                                                                                                                                                                                                                                                          Human carcinoembryonic antigen (CEA) TRE DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Schuur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 4; SEQ ID NO 54; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Henderson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-JUN-1995; 95US-00495034.

26-JUN 1996; 96US-00669753.

03-MAR-1997; 97US-0039597P.

03-MAR-1997; 97US-0039762P.

02-MAR-1998; 98US-0003333.

02-MAR-1998; 98US-0003355.

10-SEP-1998; 98US-0003355.

10-SEP-1998; 98US-00151376.
                                                                                                                                                                                                                                             BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-MAY-2002; 2002US-00139089.
                                                                                                                                                                                                                                        ADI36390 standard; DNA; 472
                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lamparski HG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            დ ფ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LITTLE A S.
LAMPARSKI H G
HENDERSON D F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2004-119002/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SCHUUR E R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US2003152553-A1.
                                                                                                                                                                                                                                                                                                                               22-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Little AS,
361
                                           361
                                                                                    421
                                                                                                                                                                                                                                                                                    ADI36390;
                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (LITT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (LAMP/)
(HEND/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (SCHO/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ношо
                                                                                                                                                                                                               ADI36390
XX AC ADI3
XX ADI3
XX ADI3
XX ADI3
XX ADI3
XX Home
XX M Mask
XX M WOUNT
XX HOME
XX M WOUNT
XX HOME
XX M WOUNT
XX HOME
                                                                                                                                                                                               RESULT 3
                                      셤
                                                                                      δ
                                                                                                                             셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                       9
                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  p16; p53;
CpG;
antigen (CEA) TRE DNA sequence of the invention. NOTE: This sequence is identical to that given as SeqID\ 7.
                                                                                                                                                                                                                                                                                                                        GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGGAGACCCGGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                        61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGATGAGGAGGCACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301 GGCAGAAATGAGAGGGGGGGGGGGGGGGACACCTGAATAAAGACCACACACCCATGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 TITCICIGICACAAAGGAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGAGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 AGCCACCACCAGCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                   GGCAGAAATGAGAGGGAGGGACAGAGACACCTGAATAAAGACCACCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 472
                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; colon cancer; oestrogen receptor; myoglobin; p21; p27; progesterone receptor; pcna; CEA; cdc2; c-erbB2; methylation; characterisation; classification; diagnosis; differentiation; colon cell proliferative disorder; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA
                                                                                              Length 472;
                                                         Sequence 472 BP; 142 A; 125 C; 134 G; 71 T; 0 U; 0 Other;
                                                                                                                                Indels
                                                                                        Query Match 100.0%; Score 472; DB 12; Best Local Similarity 100.0%; Pred. No. 1.6e-126; Matches 472; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human CEA genomic DNA SEQ ID NO:11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Taubert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACF62762 standard; DNA; 3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-AUG-2002; 2002WO-EP008939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-AUG-2001; 2001DE-01039283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Model F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (EPIG-) EPIGENOMICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-256600/25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003014388-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-FEB-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Distler J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                      181
```

: antigen; CEA; transcription regulatory sequence; TRS; cancer; metastasis; gene therapy; cytosine deaminase; ss.

Carcinoembryonic targeting;

gene

Homo sapiens WO9514100-A2 94WO-GB002546 93US-00154712

18-NOV-1994; 19-NOV-1993; (WELL) WELLCOME FOUND LTD.

Huber B;

Richards CA,

WPI; 1995-200389/26.

```
The present invention describes a method for determining the methylation status of CpG dinucleotides within the genes for oestrogen receptor, p21, p27, p16, progesterone receptor, myoglobin, pora, edC2, e-ersE2, p53 and/or CEA, which comprises contacting the target nucleic acid with a reagent that distinguishes between methylated and non-methylated CpG dinucleotides, and determining from the methylation status of the CpG consitions the presence of a colon cancer. A set of oligomers or peptide nucleic acid (PNA)-oligomers can be used as probes for determining the cytosine methylation state and/or single nucleotide polymorphisms (SNP) of a corresponding genomic DNA by analysis of a chemically pretreated genomic DNA. The pretreated genomic DNA is useful for the determination of the methylation status of a corresponding genomic DNA are also useful for the characterisation, classification, diagnosis and differentiation of colon cell proliferative disorders. ACF62752 to ACF6378 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Determining methylation status of CpG dinucleotides using modified genomic sequences, oligonucleotides and/or PNA-oligomers, useful in the characterization, grading, staging and/or diagnosis of colon cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITICICICIGICACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2626 TTTCTCTGTCACAAAGGAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGGGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCAGAAATGAGAGGGAGGGACAGAGGACACCTGAATAAAGACCCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAGACCAGACAGTCACAGCCTTGACAAAACGTTCCTGGAACTCAAGC 2976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 3500 BP; 843 A; 1039 C; 931 G; 687 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'Match 99.8%; Score 471; DB 8; Length 3500; Local Similarity 100.0%; Pred. No. 7e-126; les 471; Conservative 0; Mismatches 0; Indels
                                                                         Disclosure, Page 59-60; 219pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loca
Matches
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
```

New carcinoembyronic antigen transcriptional regulatory sequence DNA used partic. for expressing heterologous enzymes for pro-drugs in the treatment of cancers.

```
10294 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTGTTG 10353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10594 GGCAGAAATGAGAGGGGAGGGACACAGAGACACCTGAATAAAGACCACACCCATGACCCA 10653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                     CEA genomic clone lambdaCEA1 was isolated from human chromosome 19 genomic library LL19NLO1 (ATCC 57766). An HindIII/Sau3A fragment of the clone extended from -10.7 to +0.6 kb relative to the start site of CEA mRNA. TRS regions of CEA are used to target e.g. cytosine deaminase to cancer cells for prodrug activation. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTCTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGGAGACCCGGGGACCCTGCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGGAAAAAAGAGGGGGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCAGAAATGAGAGGGGACAGAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGAGGGAAGGACA
                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 471
                                                                                                                                                                                                                                                                                                                                                              Sequence 11288 BP; 2940 A; 3063 C; 2953 G; 2332 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                      Length 11288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                    99.8%; Score 471; DB 2; Le
100.0%; Pred. No. 1.1e-125;
ative 0; Mismatches 0;
                                                                                                                                                                                                                                                           Disclosure, Page 31-37; 64pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Sim.
Matches 471;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                   -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
```

RESULT 6

CEA clone HindIII-Sau3A fragment.

(revised)
(first entry)

25-MAR-2003 01-NOV-1995

DNA; 11288

AAQ90512 standard;

RESULT

AAQ90512;

S

420

÷

```
.
10414 TITCICIGICACAAAGGAAAAIAATCCCCCTGGIGIGACAGACCCAAGGACAGAACACAG 10473
                                                                                                                                                                                                                                                                                                                                 10594 GGCAGAAATGAGAGGGGGACGACAGAGGACACCTGAATAAAGACCACACCCCATGACCCA 10653
                                                                                                                                                                                                                                                                                                                                                                                                                                           10654 CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGAGGGAAGGACA 10713
                                                                                                                                            This nucleotide sequence comprises the 5' flanking region of the human carcinoembryonic antigen (CEA) gene to nucleotide +537 relative to the transcrpticional start. A 472 bp fragment (see AAVS2944) of this 5' flanking region (nucleotides -402 to +69) comprises the CEA transcriptional regulatory element (CEA-TRE) that is capable of mediating
                                                                                                                                                                                                             New adenovirus vectors, particularly for cancer therapy - comprising adenovirus gene under transcriptional control of carcinoembryonic antigen transcriptional regulatory element.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Carcinoembryonic antigen; transcriptional regulatory element; CEA-TRE; human; promoter; enhancer; adenovirus; vector; cancer; gene therapy; ds.
                                                                                                                                                                                                                                     GGCAGAAATGAGAGGGAGGACAGAGACACCTGAATAAAGACCACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                /note= "nucleotides -402 to +69 (Claim 13)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Carcinoembryonic antigen gene 5' flanking region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Schuur ER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Fig 2A-K; 95pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAV52967 standard; DNA; 15056 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /*tag= a
/label= CEA-TRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14062. .14533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US004133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97US-0039763P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lamparski HG, Henerson DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1998-495862/42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (CALY-) CALYDON INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Key
misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9839467-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11-SEP-1998
                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAV52967;
                          121
                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAV52967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           - 염
                                                                                                               ò
                                                                                                                                                          셤
                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to a recombinant nucleic acid vector comprising a first expression cassette, comprising a first promoter operably linked to a nucleic acid sequence encoding a syncytium-inducing polypeptide (such as a fusogenic membrane glycoprotein) and flanked on either side by a castence recognised by a recombinase, and/or a second expression cassette comprising a tumour-specific promoter operably linked to a nucleic acid sequence encoding a recombinase. The nucleic acid of the first expression cassette may be linked to a hypoxic response element (HRB), the second expression cassette may contain a promoter linked to a nucleic acid concoding a cytokine, and a third cassette may contain a tumour specific promoter linked to the nucleic acid encoding the recombinase. The tumour specific promoter linked to the nucleic acid encoding the recombinase. The tumour specific promoter lis, for example, a carcinoembryonic antigen (CEA) promoter or a tyrosinase promoter and the recombinase is, for example, core recombinase or FLP recombinase. The invention is useful for reducing tumour size by administering the compositions as retroviral vectors, or in a cell containing the vector, to an individual in need of treatment core and administering and the recombinance represents genomic constants.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10294 AGCCACCACAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG 10353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10354 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCCGGGACCCTGCTGGG 10413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                         Recombinant nucleic acid vector; carcinoembryonic antigen; CEA; cytokine; syncytlum-inducing polypeptide; fusogenic membrane glycoprotein; tumour; recombinase; tumour-specific promoter; hypoxic response element; HRE; ds; tyrosinase promoter; Cre; FLP; retroviral vector; malignant cell; cancer; cytostatic; gene therapy; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Recombinant nucleic acid vector for reducing tumor size, has expression cassette comprises a promoter linked to nucleic acid sequence encoding a syncytium-inducing polypeptide and flanked on either side by recombinase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCATCATCCCACCTTCCCAGAGCCCTGGAGGATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 AGCCACCACCACTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 11288 BP; 2944 A; 3060 C; 2955 G; 2329 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 11288;
                                                                                                                                                                                                                                                                                                                                                                                                                                         /product= "Human carcinoembryonic antigen"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the human carcinoembryonic antigen (CEA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'Match 99.8%; Score 471; DB 5; Le Local Similarity 100.0%; Pred. No. 1.1e-125; les 471; Conservative 0; Mismatches 0;
                                                                                                                                       Human carcinoembryonic antigen (CEA) genomic DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Murphy S, Bateman A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (MAYO-) MAYO FOUND MEDICAL EDUCATION & RES.
                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
10804. .10938
/*tag= a
    BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure, Fig 3; 84pp; English.
AAS14778 standard; DNA; 11288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-MAR-2000; 2000US-0193977P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-MAR-2001; 2001WO-US010250.
                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Harrington K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-656985/75.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200174861-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA encoding
                                                                                                                                                                                                                                                                                                                            sapiens.
                                                                                           27-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                             AAS14778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vile RG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loca
Matches
                                                                                                                                                                                                                                                                                                                            Homo
```

Š 셤

g 8

```
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                14062 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCAGAGCCACCTCTGTCACCTTCCTGTTG 14121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
gene expression specific to cells capable of expressing CEA or capable of CRE-TRE-mediated transcription. A claimed replication-competent adenovirus (Ad) vector comprises an Ad gene under transcriptional control of a CEA-TRE. By providing for transcriptional initiating regulation dependent upon CEA expression, virus replication can be restricted to target cells which allow a CEA-TRE to function, particularly carcinoma cells expressing CEA-THE vectors can be used to detect and monitor samples for the presence of cells that allow a CEA-TRE to function, and to selectively kill such cells, especially malignant cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGGACCCTGCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCAGAAATGAGAGGGAGAGAGACAGACACCTGAATAAAGACCACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14362 GGCAGAATGAGAGGGAGGGACAGAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14482 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 14532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Carcinoembryonic antigen, adenoviral vector, adenovirus gene; transcriptional regulatory element; TRE; transcriptional control; adenoviral propagation; tumour; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         471
                                                                                                                                                                                                                        Sequence 15056 BP; 3848 A; 4125 C; 4011 G; 3072 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                   Length 15056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421 GCAGACCAGACAGTCACAGCAGCCTTGACAAACGTTCCTGGAACTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA sequence of comprising a carcinoembryonic antigen TRE
                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                 Score 471; DB 2; Le
Pred. No. 1.3e-125;
                                                                                                                                                                                                                                                            Query Match 99.8%; Score 471; DE Best Local Similarity 100.0%; Pred. No. 1.3 Matches 471; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAZ99933 standard; DNA; 15056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0099791P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US020718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200015820-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-SEP-1998;
09-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAZ99933,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          THE SECTION OF THE SE
  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
```

```
14361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCAGAAATGAGAGGGGAGAGAGAGACACTGAATAAAGACCACACCCATGACCA 14421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                               (TRE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                          The present sequence comprises a transcriptional regulatory element (TRI from a carcinoembryonic antigen gene. The TRE is used to produce an adenoviral vector of the invention. The specification describes an adenovirus vector which comprises an adenovirus gene under transcriptional control of a cell status specific TRE. The TRE is preferably one that is essential for adenovirus propagation. The adenovirus vectors may be used for the treatment of a range of tumours such as lung, stomach, breast, colon and rectum, and uterine and cervix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAAACCCGGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITCTCTGTCACAAAGAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14302 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGAGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCAGAAATGAGAGGGAGGGACAGAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGAGGGACAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                          Adenovirus vectors comprising cell-status specific response elements useful in gene therapy protocols for the treatment of cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14482 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 14532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 15056 BP; 3848 A; 4125 C; 4011 G; 3072 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Adenoviral vector, adenoviral gene; B3 sequence; cancer; target cell-specific transcriptional regulatory element; TRE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 471; DB 3; Length 15056;
Pred. No. 1.3e-125;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Pred. No. 1.3 ive 0; Mismatches
                                                                                                                                                                                                                Disclosure; Fig 5A-I; 79pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleotide sequence of a CEA-TRE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAA46851 standard; DNA; 15056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99.84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 471; Conservative
                                               Henderson DR;
(CALY-) CALYDON INC.
                                                                                           WPI; 2000-271456/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAA46851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                            Yu DC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 9
AAA46851
```

```
The sequences given in AAH43607-22 represent sequences which may used in the replication-competent adenoviral vector (a) of the invention. The vector contains two genes (G1) that are co-transcribed as a single mRNA and under control of a heterologous, target cell-specific transcriptional regulatory element (TRE). G2 has a mutation in, or deletion of, its endogenous promoter and is controlled from an internal ribosome entry site (IRES). (A) has greater specificity for a target cell ribosome entry site (IRES). (A) has greater specificity for a target cell cacks an IRES. (A) are used to modify the genotype of target cells. Coptionally in vitro with subsequent return of altered cells to the host and where G2 is a cytotoxic gene, to confer selective cyto- toxicity to target cells, especially for killing cancer cells. Also (A) are used for diagnosis and monitoring, e3. detection of bladder cancer cells. The carget cells specific TRE ensures that (A) has better targeting specificity, with minimal replication in non-target cells, so a runaway infection is prevented but production of adenoviral proteins in target cells activates and/or stimulates the immune response against target cells producing such proteins. The use of an IRES (rather than two cells activates and/or stimulates the risk of homologous recombination and may provide enough extra space for an additional
    Replication-competent adenoviral vector, useful e.g. for killing cancer cells, contains two genes linked by internal ribosome entry site and controlled by target-specific regulator.
                                                                                                                                                                                                                                                                                                                                                                                                        Adenovirus; ADP; replication-competent; adenoviral vector; TRE; PCR; transcriptional regulatory element; mutation; deletion; IRES; primer; promoter; internal ribosome entry site; cytotoxic; cancer; bladder; amplify; polymerase chain reaction; alpha-fetoprotein; AFP; BMCV; encephalomycarditis virus; vascular endothelial growth factor; VEGF; immunoglobulin heavy-chain binding protein; BiP; uroplaxin II; PDGF; platelet derived growth factor; hypoxia responsive element; HRE; prostate-specific antigen; PSA; ss.
                                                                                 14482 GCAGACCAGACAGTCACAGCAGCCTTGAAAACGTTCCTGGAACTCAAGC 14532
                                                 421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Transcription start site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example; Page 117-125; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
14466. .15056
                                                                                                                                                                                                                   AAH43620 standard; cDNA; 15056 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-MAR-2001; 2001WO-US009036.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-MAR-2000; 2000US-0192156P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Li Y, Henderson DR;
                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (CALY-) CALYDON INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-639234/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200173093-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   precursor_RNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                              07-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-OCT-2001.
                                                                                                                                                                                                                                                               AAH43620;
                                                                                                                                                                                                                                                                                                                                                              CEA-TRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Yu D,
                                                                                                                                                                   RESULT 10
                                                                                                                                                                                            AAH43620
ID AAH4
                                                                                           셤
                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14302 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGGAGGACAAAAGA 14361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The specification describes an adenoviral vector which comprises an adenoviral gene under the transcriptional control of a target cellagelocific transcriptional regulatory element (TRE) and an E3 sequence. The vectors are useful for exerting selective cytotoxicity and/or suppressing call growth (including tumour growth). This is especially useful in treating cancer in which targeted cell killing is desirable. This is also useful for targeted cytotoxic effects in other, non-tumour calls, when selective destruction and/or suppression of these cells is desirable. The vectors can also be useful for detecting the presence of cells which permit function of a target call-specific TRE in, for example, an appropriate biological (such as clinical) sample. The adenovirus appropriate biological (such as clinical) sample. The adenovirus functions appropriately produce one or more proteins of interest in a target cell by using a heterologues, i.e., non-adenoviral, TRE. The present sequence represents a CEA-TRE, which is used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTCTCTCTGTCACAAAGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ၀
                                                                                                                                                                                                                                                                                                                                                                                                                                                     New adenoviral vector for selective targeting of cancer cells, comprises an adenovirus gene under transcriptional control of a target cell-specific transcriptional regulatory element and an R3 sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14062 AGCCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCATCATCCCACCTTCCCAGAGCCCTGGAGGCATGGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGAGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 AGCCACCACCCAGGGGGGTTTTTTTTTAGGCCCCCAGAGCCACCTCTGTCACCTTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGGGGGCAAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCAGAAATGAGAGGGGAGGGCACAGAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 15056 BP; 3848 A; 4125 C; 4011 G; 3072 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 15056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
    88
selective cytotoxicity; cell growth; tumour growth;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99.8%; Score 471; DB 3; Le
100.0%; Pred. No. 1.3e-125;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure, Fig 23; 138pp; English.
                                                                                                                                                                                          99WO-US031249,
                                                                                                                                                                                                                                      98US-0114262P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 100.0%;
Matches 471; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       course of the invention
                                                                                                                                                                                                                                                                                                                                                              Yu D;
                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-452409/39.
                                                                                                                                                                                                                                                                                                              (CALY-) CALYDON INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                           WO200039319-A2
                                                                                                                                                                                                                                                                                                                                                         Henderson DR,
                                                 Homo sapiens,
                                                                                                                                                                                       30-DEC-1999;
                                                                                                                                                                                                                                      30-DEC-1998;
                                                                                                                                                                                                                                                               29-DEC-1999;
                                                                                                                                           06-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
```

g

8 8 8

8

ઠ

g

a

ઠ

셤

ò

ω

```
셤
                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                               쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                              ò
                                                                                                                                                   14241
                                                                                                                                                                                    14301
                                                                                  14121
                                                                                                                                                                                                                                                                                       14481
                                                                                                                   14181
                                                                                                                                                                                                                     14361
                                                                                                                                                                                                                                                      14421
                                                  ö
                                                                                                   120
                                                                                                                                    180
                                                                                                                                                                     240
                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                    300
                                                                                                                                                                                                                                      360
                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                 Tumour growth suppression; adenovirus vector; antineoplastic agent; transcriptional regulatory element; TRE; radiotherapy; bladder cancer; prostate cancer; liver cancer; brost cancer; colon cancer; melanoma; ovarian cancer; pancreatic cancer; lung cancer; brain cancer; therapy;
                                                                                                                                                                                                              14062 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                              14122 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGGACCCTGCTGGG
                                                                                                                                   TITCICIGICACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                             1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                   GCCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGGACCCTGCG
                                                                                                                                                   14182 TTTCTCTCTGTCACAAAGGAAATAATCCCCTGGTGTGACAGACCCAAGGACAGAAGACACA
                                                                                                                                                                    241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGGGGCCAAAAGA
                                                                                                                                                                                                                                     GGCAGAAATGAGAGGGGAGGGACAGAGACACCTGAATAAAGACCACCCATGACCCA
                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                  GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 14532
                                                                                                                                                                                                                                                                                                       471
                Sequence 15056 BP; 3848 A; 4125 C; 4011 G; 3072 T; 0 U; 0 Other;
                                                  ö
                                  Length 15056;
                                                                                                                                                                                                                                                                                                       GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC
                                                 Indels
                                99.8%; Score 471; DB 5; Le 100.0%; Pred. No. 1.3e-125;
                                                  ö
                                        Local Similarity 100.0%; Pred. No. 1.3
68 471; Conservative 0, Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                CEA-TRE fusion protein coding sequence.
                                                                                                                                                                                                                                                                                                                                                                 ВР
                                                                                                                                                                                                                                                                                                                                                                AAF87238 standard; DNA; 15056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chen Y, Henderson DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-MAR-2001; 2001WO-US009042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-MAR-2000; 2000US-0192015P
                                                                                                                                                                                                                                                                                                                                                                                                 entry)
                                                                                                                                                                                                                                                                                                                                                                                                 (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (CALY-) CALYDON INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-648426/74
(therapeutic) gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200172341-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-OCT-2001
                                                                                                                                                                                                                                                                     361
                                                                                                                                   121
                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                      14482
                                                                                                   61
                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                               AAF87238;
                                  Query Match
                                           Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ϋ́α
D,
                                                                                                                                                                                                                                                                                                                                               SXS
                                                                                                                g
                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                    g
                                                                 ઠે
                                                                                셤
                                                                                                 ઠે
                                                                                                                                   ઠે
                                                                                                                                              g
                                                                                                                                                                   ઠે
                                                                                                                                                                               g
                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                     셤
```

```
14181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14362 GGCAGAATGAGAGGGGAGGGACAGAGGACACCTGAATAAAGACCACACCCATGACCCA 14421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                              This sequence represents a CEA-TRE fusion protein coding sequence used in the scope of the invention. The invention relates to a method for the suppression of tumour growth comprising the administration of: (a) a target cell-specific adenovirus vector comprising an adenoviral gene essential for replication under transcriptional control of a target cell-specific ranscriptional regulatory element (TRE); and (b) at least one antineoplastic agent; or (c) a course of radiotherapy where the amount of suppressing tumour growth when administered alone. The method is used for suppression of tumour growth for treatenent of e.g. bladder cancer, prostate cancer, liver cancer, breast cancer, colon cancer, melanoma, ovarian cancer, pancreatic cancer, lung cancer, colon cancer, melanoma, cowarian cancer, pencreatic cancer, lung cancer, colon cancer, The combinations enhance the efficacy of treatment, allowing lower doses to be administered, reducing toxicity and suffering of the patient
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Adenovirus; transcriptional regulatory element; TRE; prostate; liver; breast cancer; colon cancer; antitumour; gene; ds; probasin; PB; human; rat; carcinoembryonic antigen; prostate-specific antigen; ADP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14062 AGCCACCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14122 GGCATCATCCCACTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGAACACCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14302 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGGAGGAGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTCTCTGTGAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCAGAAATGAGAGGGGAGGGGACAGAGACACCTGAATAAAGACCACACACGTGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Prostate-specific antigen transcriptional regulatory elelment (TRE).
Suppression of tumor growth, e.g. liver, bladder or breast cancer, comprises using a synergistic combination of adenovirus vector and antineoplastic agent or radiotherapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCAGACCAGACAGTCACAGCGGCCTTGACAAAACGTTCCTGGAACTCAAGC 14532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 15056 BP; 3848 A; 4126 C; 4010 G; 3072 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 99.8%; Score 471; DB 5; Length 15056; Best Local Similarity 100.0%; Pred. No. 1.3e-125; Matches 471; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC
                                                                                                                             Claim 12; Page 185-193; 248pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABK99582 standard; DNA; 15056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABK99582;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14482
```

human;

σ

```
The present invention relates to adenoviral vectors comprising an adenovirus gene under transcriptional control of a cell type-specific transcriptional response element (TRE). Example TRES given in the specification include human prostate-specific antigen (PSA) TRE, human arcinoembryonic antigen (CEA) TRE, and human mucin-like glycoprotein DF3 (MUC1) TRE. The modified adenovirus vector is useful as a vehicle for introducing new genetic capability, particularly associated with cytotoxicity for treating neoplasia. For example, the vector may be used in a target cell to suppress tumour growth, or to kill the target cell. The vector is particularly useful in gene therapy. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New adenovirus vector for transfecting target host cells, comprises an adenovirus gene under transcriptional control of a cell type-specific transcriptional response element.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCCACCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCTGTTG
Adenoviral vector; adenovirus gene; transcriptional control; TRE; cell type-specific; transcriptional response element; PSA; hKLK; prostate-specific antigen; glandular kallikrein; probastin; PB; carcinoembryonic antigen; CEA; mucin-like glycoprotein DF3; MUCI; cytotoxicity; neoplasia; tumour growth; gene therapy; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 15Q56 BP; 3848 A; 4125 C; 4011 G; 3072 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 471; DB 8; Length 15056; Pred. No. 1.3e-125;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 99.8*; Score 471; DB Best Local Similarity 100.0*; Pred. No. 1.3 Matches 471; Conservative 0; Mismatches
                                                                                                                                                                                                                                     Human carcinoembryonic antigen (CEA) TRE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure, Fig 14; 83pp; English.
                                                                                                                     BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9605-00699753.
9705-00395979
9705-0039599P
9705-0039762P
9805-0003333.
9805-00033428
                                                                                                                     DNA; 15056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-00151376
                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Schuur ER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HENDERSON D R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-456547/43.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        я
Ж
                                                                                                                     ACD07309 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   US2003044383-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SCHUUR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Henderson DR,
                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-AUG-1996;
03-MAR-1997;
03-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-MAR-1997;
02-MAR-1998;
02-MAR-1998;
02-MAR-1998;
                                                                                                                                                                                              07-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-MAR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-MAR-1997
                                                                                                                                                          ACD07309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (HEND/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (SCHIU/)
                                                                                 RESULT 13
ACD07309
                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to an adenovirus vector (AV) comprising an AV gene under transcriptional control of a cell type-specific transcriptional regulatory element (TRE) and optionally a first AV gene under control of a first cell type-specific TRE and a second gene under control of a second cell type-specific TRE, where the first and second cell type-specific TRE, where the first and second cell type-specific TRE, where the first and second cell type-specific TRE, where the first can be second cell type-specific TRE and second cell type-specific TRE and second cell type-specific TRE to function, resulting in cyclocoxicity. The vector is useful for suppressing tumour growth of a target cell. This sequence represents a polynucleotide used in the scope of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                      Novel adenovirus vector comprises adenovirus gene under transcriptional control of cell-type specific transcriptional response element for conferring selective toxicity on target cell and for suppressing tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCATCATCCCACCTTCCCAGAGCCCTGGAGGCATGGGGAGCCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCAGAAATGAGAGGGGAGAGAGACACAGACACTGAATAAAGACCACACCCATGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 AGCCACCACCAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCAGAAATGAGAGGGGACAGAGACAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 15056 BP; 3848 A; 4125 C; 4011 G; 3072 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 15056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity 100.0%; Pred. No. 1.3e-125; nes 471; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99.8%; Score 471; DB 6;
      adenovirus death protein; glandular kallikrein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Fig 15; 83pp; English
                                                                                                                                                                                                98US-00151376,
                                                                                                                                                          06-DEC-2000; 2000US-00732169
                                                                                                                                                                                                                                                                                             Schuur ER;
                                                                                                                                                                                                                                     (HEND/) HENDERSON D R.
                                                                                                                                                                                                                                                                                                                                    WPI; 2002-582468/62
                                                                                                                                                                                                                                                         (SCHU/) SCHUUR B R.
                                                                               US2002068049-A1.
                                                                                                                                                                                                                                                                                             Henderson DR,
                                        Unidentified
                                                                                                                                                                                              10-SEP-1998;
                                                                                                                     06-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                 growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
```

ò 셤 ઠે 셤 ò 셤 δ 셤 8 윱 ઠે g ઠે

ö

```
14181
                                                                                                                                                                                                                                                                                                                            14301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14421
                                                                                                                                                                                               14481
14062 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCAGAGCCACTCTGTCACCTTCCTGTTG 14121
                                                                                                                                                                                                                                                                                                                                                                                                                                           14361
                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a novel method for detecting and differentiating between colon cell proliferative disorders associated with at least one gene or its regulatory regions. The method comprises contacting a target nucleic acid in a biological sample obtained from the subject with at least one reagent or a series of reagents, where the reagent or series of
                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Detecting and differentiating between colon cell proliferative disorders associated with a gene or its regulatory regions comprises contacting a target nucleic acid in a biological sample obtained from the subject with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              dB.
                                                                               14362 GGCAGABAATGAGAGGGGAGGGGACAGAGGACACCTGAATAAAGACCACACCCATGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14422 CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGAGGAGGAGGAGA
                                                                                                                                                            TITCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                      GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301 GGCAGAAATGAGAGGGGAGGGACAGAGACACCTGAATAAAGACCACACCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGAGGAAGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              colon cell proliferative disorder; non methylated CpG dinucleotide; cytostatic; cancer; adenoma; carcinoma; cytosine methylation state;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14482 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 14532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lesche
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCAGACCAGACAGTCACAGCGGCCTTGACAAAACGTTCCTGGAACTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        щ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Becker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'n,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nimmrich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 46; SEQ ID NO 56; 74pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Maier S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADB54000 standard; DNA; 4138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-FEB-2003, 2003WO-EP002035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-FEB-2002; 2002EP-00004551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CEA genomic DNA region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P, Burger M,
Schmitt A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-731620/69.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (EPIG-) EPIGENOMICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO2003072821-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-SEP-2003,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Adorjan P.
Rujan T,
                                                                                                                                                            121
                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADB54000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 14
ADBS ADBS
XX ADBS
XX ADBS
XX ADBS
XX COLO
XX
                                             ઠે
                                                                                           a
                                                                                                                                                    ò
                                                                                                                                                                                            음 장
                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
```

```
2168
                                                                                                                                                                                                                                                                                                                                                                                                                                                               2348
                                                                                                                                                                                                                                                                                                                                             2228
                                                                                                                                                                                                                                                                                                                                                                                                      2288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2527
                                                                                                   of
18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA vaccine; immune response; carcinoembryonic antigen; CEA; CD40 ligand; homotrimer; cytostatic; gene therapy; cancer; colon cancer; human; gene;
reagents, distinguishes between methylated and non methylated CpG dinucleotides within the target nucleic acid. The molecules of the invention demonstrate cytostatic activity whilst the method may useful for detecting and differentiating between colon cell proliferative disorders, including cancers such as colon adenoma and colon carcinoma. The PNA (peptide nucleic acid)-oligomers are useful as probes for determining cytosine methylation state or single nucleotide polymorphisms. The current sequence is that of the genomic DNA region of the invention. This sequence is not shown within the specification but:
                                                                                                                                                                                                                                                                                                                                                                            TTTCTCTGTCACAAAGGAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                        AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                  GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGATGGGGAGACCCGGGACCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                             TITCICTGTCACAAAGGAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                               cadadercadeacredegaadacaderrereceedegaadegaredarecaeerr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2349 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGGGGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2409 GGCAGAAATGAGAGGGGAGGGGACAGAGGACACCTGAATAAAGACCACACCC-TGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCAGAAATGAGAGGGGAGGGGACAGAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGAGGGACAAAAAA
                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          471
                                                                                                                                                                                                                          1;
                                                                                                                                                                                             DB 10; Length 4138;
                                                                                                                                                                 Sequence 4138 BP; 1048 A; 1201 C; 1059 G; 830 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCAGACCAGACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC
                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a human carcinoembryonic antigen, CEA, gene.
                                                                                                                                                                                                                           5
                                                                                                                                                                                           Score 455.8; DB 10;
Pred. No. 1.9e-121;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP
                                                                                                                                                                                           ery Match 96.6%; st Local Similarity 99.4%; ches 468; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard; DNA; 3281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-FEB-2003; 2003WO-US006295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-MAR-2002; 2002US-00090238
                                                                                                                                   taken from Wipoweb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2003074712-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-SEP-2003
                                                                                                                                                                                                                                                                                   2109
                                                                                                                                                                                                                                                                                                                                              2169
                                                                                                                                                                                                                                                                                                                                                                                                       2229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADC37109;
                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADC37109
                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       늉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA
   888888888888888
                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
```

```
1617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1440 CAGAGGICAGCACTGGGGAAAGACAGGTTGTC--CACAGGGGGATGGGGGGTCCATCCACCT 1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1498 TGCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGGGAGGACAAAAA 1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3,
                                                                                                                                                                                                                                                               The invention relates to a novel DNA vaccine for eliciting an immune response against cells that present a carcinoembryonic antigen (CEA). The vaccine comprises a plasmid DNA operably encoding a CEA, and a plasmid DNA operably encoding a CD40 ligand or its homotrimer, together with a carrier. The DNA vaccine has cytostatic activity and may be used in gene therapy to treat disorders. The DNA vaccine is useful in preventing cancers, such as colon cancer, by eliciting an immune response against cells that present CEA, including colon cancer cells. This polynuclactide sequence represents the DNA of a human CEA gene, used as a ligand of the
                                                                                                                            New DNA vaccine for eliciting an immune response against cells presenting a carcinoembryonic antigen (CEA) such as colon cancer cells, comprises plasmid DNAs encoding a CEA and/or a CD40 ligand, together with a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGGACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300 AGGCAGAAATGAGAGGGAAGGGACAGAGACACCTGAATAAAGACCACACCCATGACCC 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 TITCICIGICACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGGAAAAAAGAGGGGGCACAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1558 AGGCAGAAATGAGAGGGGAGAGAGAAGAGACCTGAATAAAGACCACCACCATGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 CAGAGGTCAGCACTGGGG-AAGACAGGTTGTCCTCCCAGGGGATGGGGGTCCATCCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCAGACCAGACACTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 1729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420 AGCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 91.6%; Score 432.4; DB 10; Length 3281; Best Local Similarity 98.9%; Pred. No. 1.1e-114; Matches 467; Conservative 0; Mismatches 1; Indels 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 3281 BP; 847 A; 953 C; 871 G; 610 T; 0 U; 0 Other;
                                                                                                                                                                                                                             Disclosure; SEQ ID NO 1; 48pp; English
                  (SCRI ) SCRIPPS RES INST
                                                      Reisfeld RA;
                                                                                            WPI; 2003-748281/70.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1678
                                                    Xiang R,
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
```

Search completed: December 11, 2004, 06:59:41 Job time: 430 secs

THIS PAGE BLANK (USPTO)

```
: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic aci
STRANDEDNESS: sin
TOPOLOGY: linear
 RESULT 1
US-09-033-556-7
Sequence 177, App
Sequence 169, App
Sequence 14905, A
Sequence 14902, A
Sequence 14902, A
Sequence 14904, A
Sequence 14904, A
Sequence 14904, A
Sequence 14904, A
Sequence 161, Appl
Sequence 16, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 54, Appli
Sequence 1, Appli
Sequence 4, Appli
Sequence 4, Appli
Sequence 10, Appli
Sequence 10, Appli
Sequence 1, Appli
Sequence 2, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 5, Appli
Sequence 14, Appl
Sequence 177, App
Sequence 177, App
Sequence 177, App
Sequence 169, App
Sequence 169, App
                                                                                                                 ; Search time 90 Seconds (without alignments) 3727.693 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                         1 AGCCACCACCAGGAGGCT.....ACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1: /cgn2 6/ptodata/1/ina/5A COMB.seq:*
2: /cgn2 6/ptodata/1/ina/5B_COMB.seq:*
3: /cgn2 6/ptodata/1/ina/6A_COMB.seq:*
5: /cgn2 6/ptodata/1/ina/6B_COMB.seq:*
6: /cgn2 6/ptodata/1/ina/PCTUS COMB.seq:*
6: /cgn2 6/ptodata/1/ina/pcTUS COMB.seq:*
              GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-389-459A-16
US-08-987-867A-16
                                                                                                                                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                               824507 seqs, 355394441 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUMMARIES
                                                                                                                   December 11, 2004, 06:33:08
                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                  - nucleic search, using sw model
                                                                                                                                                                                                                                                          IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Issued Patents NA:*
                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                    US-10-045-116-1
472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11288
11288
11288
11288
15056
15056
15056
3774
3774
3774
7218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10000.0
10000.0
10000.0
10000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.
                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            472
472
471
471
471
471
156.6
94
94
11.2
971.2
57.6
57.5
                                                                                                                                                                                                          Perfect score:
                                                                                  OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Database:
                                                                                                                                                                                                                           Sequence:
                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Run on
                                                                                                                                                                                        Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Result
```

```
Sequence 7, Application US/09033556
Patent No. 6432700
GENERAL INFORMATION
APPLICANT: Henderson, Daniel R.
APPLICANT: Yu, De Chao
TITLE OF INVENTION: ADBROVING VECTORS CONTAINING
TITLE OF INVENTION: OF USING SAME
NUMBER OF SEQUENCES: 41
CORRESPONDENCE ADDRESS: CORRESPONDENCE ADDRESS: CORRESPONDENCE ADDRESS: CONTAINED OF USING SAME
STREET: 755 PAGE MILL ROAD
CITY: Palo Alto
STATE: CA
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                         15639, A
17, Appl
17, Appl
149, Appl
14899, A
12, Appl
392, Appl
392, Appl
392, Appl
                                                                                                                                                                                                                                                                                                                                            Sequence 13385,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                             Sequence
Sequence
Sequence
      Sequence
Sequence
Sequence
                                                              Sequence
Sequence
Sequence
                                                                                                                                                                                                   Sequence
Sequence
Sequence
                                                                                                                                           Sequence
                                                                                                                        Sequence
                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 100.0%; Score 472; DB 4; Length 4 Best Local Similarity 100.0%; Pred. No. 9.2e-134; Matches 472; Conservative 0; Mismatches 0; Indels
US-09-513-999C-3741

US-09-38E-486

US-09-621-976-15539

US-09-007-005-17

US-08-984-709A-49

US-08-984-709A-52

US-08-913-999C-8272

US-08-913-999C-8272

US-08-113-999C-8272

US-08-113-999C-8272

US-08-113-9912

US-08-113-9912

US-08-113-9912

US-08-113-918-392

US-08-123-918-392

US-08-123-918-392

US-08-123-918-392

US-08-123-918-392

US-09-154-947-392

US-09-154-947-392

US-09-154-947-392

US-09-270-76-13385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLION TIPE: LDB.KECLE
OPERATING SYSTEM: Windows
SOFTWARE: FastSEQ for Windows
SOFTWARE: FastSEQ for Windows Version 2.0b
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/033,556
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 34802-20010.00
REFERENCE/DOCKET NUMBER: 34802-20010.00
REFERENCE/DOCKET NUMBER: 34802-20010.00
TELEPAX: 650-494-0792
TELEPAX: 706141
INPORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LEMENTH: 472 Dase pairs
TYPE: INCleic acid
                                                                                                                                                                                                                                                                                                                                                                                                      ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
```

N

240

300 360 420 420

8

ð

셤 ò g ઠે g ठे g 8 6

ò 8 δ

```
61 GGCATCATCCCACCTTCCCAGAGCCTTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITCICIGICACAAAGGAAATAATCCCCCTGGTGACAGACCCCAAGGACAGAACACACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 TITCICIGICACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACAGA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCAGAAATGAGGGGGGGGGGACAGGACACCTGAATAAAGACCACACCATGACCA 360
241 GCCGAAAAGATTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGGGGCACAAAGA
                                                                                                                                  GGCAGAAATGAGGGGGGGGGGGACAGAGGACACCTGAATAAAGACCACACCATGACCCA
                                                                                                                                                                              GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGAAAAAAAGAGGGACAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCAGAJATGAGAGGGGAGGGGACAGAGGACACCTGAATAAAGACCACACCCATGACCA
                                                                                                                 GGCAGAAATGAGAGGGAGGGACAGAGGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 AGCCACCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGGAAAAAAGAGGGACAAAAAA
                                                 GCCGAAAAGATTTGTCTGAGGAACTGAAATAGAAGGGGAAAAAAAGAGGGGGGCACAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 472; DB 4; Length 472; 100.0%; Pred. No. 9.2e-134; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: Unknown
US-09-151-376-54
                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Henderson, D.R.
APPLICANT: Schuur, E.R.
TITLE OF INVENTION: TISSUE SPECIFIC VIRAL VECTORS
FILE REFERENCE: 348022000221
CURRENT APPLICATION WUMBER: US/09/151,376
CURRENT FILING DATE: 1996-09-10
EARLIER FILING DATE: 1996-06-26
EARLIER FILING DATE: 1996-06-27
SARLIER FILING DATE: 1995-06-27
NUMBER OF SEQ ID NOS: 71
SOFTWARE: PATENTH: Ver. 2.0
SEQ ID NO 54
LENGTH: 472
                                                                                                                                                                                                                                                                                                                                                        ; Sequence 54, Application US/09151376
; Patent No. 6676935
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 100.
Matches 472; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Unknown
                                                                                                                                                                                                                                                                                                                                           US-09-151-376-54
                                                                                                               301 (
                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                  181
                                                 241
                                                                                                                                               301
                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                      8
                                                                                                            ò
                                                                                                                                   g
                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                        8
                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                240
                                                                                                                                180
                                                                                                                                                                180
                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                9
                                                              GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGGAACCCGGGACCCTGGT
                                                                                                                                                         1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCATCATCCTGTTG
                  AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTGTCACCTTCCTGTTG
                                                                                 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGAACCCTGCTGGG
                                                                                                                              chdadgrchgcachgcahadachggrrigrccrcchgggargggargggrcchrchactr
                                                                                                                                                                                                                                                                                                                          GGCAGAAATGAGAGGGGACAGAGGACACCTGAATAAAGACCACACCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                            1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCATCATCCCACCTTCCCAGAGCCCTGGAGGATGGGGAGACCCCGGGACCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.0%; Score 472; DB 4; Length 472; Best Local Similarity 100.0%; Pred. No. 9.2e-134; Matches 472; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 7. Application US/09151376
Patent No. 6676335
GENERAL INFORMATION:
APPLICANT: Schuur, E.R.
TITLE OF INVENTION: TISSUE SPECIFIC VIRAL VECTORS
FILE REFERENCE: 348022000221
CURRENT APPLICATION NUMBER: US/09/151,376
CURRENT FILING DATE: 1998-09-10
EARLIER FILING DATE: 1996-06-26
EARLIER FILING DATE: 1996-06-27
NUMBER OF SEQ ID NOS: 71
SOFTWARE: PATENTY OF SEQ ID NOS: 71
SEQ ID NO SEQ ID NOS: 72
SEG ID NO SECO ID NOS: 71
SEG ID NO SECO ID NOS: 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
CORGANISM: Homo sapiens
US-09-151-376-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 2
US-09-151-376-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                61
                                                                                            61
                                                                                                                              121
                                                                                                                                                                                              181
                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
```

ö

9

120

300

300

240 240

ò 요 δ 윱 ò

```
241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCAGAAATGAGAGGGGAGGGGACAGAGGACACCTGAATAAAGACCACACCATGACCCA 10653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10713
                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: Richards, Cynthia Ann
APPLICANT: Richards, Cynthia Ann
APPLICANT: Richards, Cynthia Ann
APPLICANT: Huber, Brian E.
TITLE OF INVENTION: Transcriptional Regulatory Sequence of Carcinoembryonic
TITLE OF INVENTION: Antigen for Expression Targeting
TITLE OF INVENTION: Antigen for Expression Targeting
TITLE OF INVENTION NUMBER: US/08/646,301A
CURRENT APPLICATION NUMBER: US/08/646,301A
CURRENT FILING DATE: 1996-05-16
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1
LENGTH: 11288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10354 GGCATCATCCCACCTTCCCAGAGCCCTGGAGGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10414 TTTCTCTGTGACAAAGGAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAAGACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGGAGGAAGAAGAA
              CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGAGGAGGAGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10294 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCAGAAATGAGAGGGGAGGGGACAGAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                   421 GCAGACCAGACAGTCACAGCGCCTTGACAAAACGTTCCTGGAACTCAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                   Length 11288;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                 'Match 99.8%; Score 471; DB 3; Le Local Similarity 100.0%; Pred. No. 8.4e-133; Les 471; Conservative 0; Mismatches 0;
                                                                                                                                              Sequence 1, Application US/08646301A Patent No. 6194211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 4, Application US/08481968A
Patent No. 6300490
GENERAL INFORMATION:
APPLICANT: Huber, Brian
                                                                                                                                                                                                                                                                                                                                                                       ; ORGANISM: Homo sapiens
US-08-646-301A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-481-968A-4
                                                                                                                                      US-08-646-301A-1
                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10714
361
                        361
                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10654
                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
                        셤
                                                   ò
                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
```

```
Richards, Cynthia
ERNION: Molecular Constructs Comprising a Carcinoembryonic Antigen (CEA
TENTION: Transcriptional Regulatory Region
(CE: PB1087US4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 4, Application US/08154712B
Sequence 4, Application US/08154712B
Sequence 4, Application US/08154712B
Sequence 4, Application US/08154712B
GENERAL INFORMATION:
APPLICANT: Richards, Cynthia
APPLICANT: Richards, Cynthia
TITLE OF INVENTION: Molecular Constructs Containing a Carcinoembryonic Antigen Regranted REPERENCE: Pal087US
TITLE OF INVENTION: Sequence
FILE REFERENCE: Pal087US
CURRENT PILING DATE: 1993-11-19
NUMBER OF SEQ ID NOS: 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10533
                                                                                                                                                                                                                                                                                                                                                                                                                                                  10353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10594 GCCAGAAATGAGAGGGGAGGGACAGAACACCTCAATAAAGACCACACCATGACCCA 10653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                10294 AGCCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCCGGGAACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          471
                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99.8%; Score 471; DB 3; Length 11288; 100.0%; Pred. No. 8.4e-133;
                                                                                                                                                                                                                                                                                                           Query Match 99.8%; Score 471; DB 3; Length 11288; Best Local Similarity 100.0%; Pred. No. 8.4e-133; Matches 471; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC
                  TITLE OF INVENTION: Molecular Constructs
TITLE OF INVENTION: Transcriptional Regula
FILE REFERENCE: PB1087US4
CURRENT APPLICATION NUMBER: US/08/481,968A
CURRENT FILING DATE: 1998-06-07
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PatentIn version 3.0
                                                                                                                                                                                                                       TYPE: DNA
CORGANISM: Homo sapiens
US-08-481-968A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 11288
                                                                                                                                                                                                    LENGTH: 11288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 6
US-08-154-712B-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-154-712B-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                            SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
```

10653

360

```
14062 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG 14121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14362 GGCAGAAATGAGAGGGGAGGGGACAGAGGACACCTGAATAAAGACCACACCCCATGACCCA 14421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14302 GCCGAAAGATTTGTCTGAGGAACTGAAATAGAAGGGAAAAAAGGGGAGGGGGGACAAAAGA 14361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCAGAAATGAGAGGGGAGGACAGAGGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCATCATCCCACCTTCCCAGAGCCCTGGAGGATGGGGAGCCCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                              GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 15056;
                                                                                                                                                                                                                                                                                                                        Sequence 10, Application US/09474699
Patent No. 6495130
GENERAL INFORMATION:
APPLICANT: Henderson, Daniel R.
APPLICANT: Yu, De Chao
TITLE OF INVENTION: CONTAINING E3 AND METHODS OF USE THEREOF
TITLE OF INVENTION: CONTAINING E3 AND METHODS OF USE THEREOF
TITLE OF INVENTION: CONTAINING E3 AND METHODS OF USE THEREOF
CURRENT APPLICATION NUMBER: US/09/474,699
CURRENT FILING DATE: 1999-12-29
PRIOR FILING DATE: 1999-12-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 99.8%; Score 471; DB 4; Le
Best Local Similarity 100.0%; Pred. No. 9.6e-133;
Matches 471; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 23
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TYPE: DNA
; ORGANISM: Homo Sapien
US-09-474-699-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 15056
                                                                                                                                                                                                                                                                                                    RESULT 8
US-09-474-699-10
                                                                   241
                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14182
                                                                                                                                                                               361
                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                음 장
                                                                                      8 B
                                                                                                                                          a
                                                                                                                                                                   ð
                                                                                                                                                                                                  요
                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                ઠ
                                                                                                                                                  10653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10294 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG 10353
                                                                                                                                                                                                                                                                         10593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                 120
                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTCTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG 180
                                                                            GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAACCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                              10534 GCCGAAAAGATTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGGGGGGGCAAAAAGA
                                                                                                                                                                                                                                                                                                   GGCAGAAATGAGAGGGGAGGGACAGAGACACCTGAATAAAGACCACACCATGACCCA
                                                                                                                                                                                                                                                                                                                    TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                         GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGGACGAAAAGA
                                                                                                                                                                                                                                                                                                                                                       CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGAGGGAAGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCATCATCCCACCTTCCCAGAGCCCTGGAGGGATGGGGAGACCCGGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Huber, Brian
APPLICANT: Richards, Cynthia
TITLE OF INVENTION: Molecular Constructs Containing a Carcinoembryonic
TITLE OF INVENTION: Antigen Regulatory
TITLE OF INVENTION: Sequence
FILE REFERENCS: PBL087US3
CURRENT APPLICATION UNMBER: US/09/947,925A
CURRENT FILING DATE: 2001-09-06
PRIOR APPLICATION NUMBER: US/09/154,712
PRIOR FILING DATE: 1993-11-19
 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                     10714 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 10764
                                                                                                                                                                                                                                                                                                                                                                                                             471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
 ö
                                                                                                                                                                                                                                                                                                                                                                                                           GCAGACCAGACACCACAGCAGCCTTGACAAAACGTTCCTGGAACTCCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 11288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 99.8%; Score 471; DB 4; Lo
Best Local Similarity 100.0%; Pred. No. 8.4e-133;
Matches 471; Conservative 0; Mismatches 0;
 ö
 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 4, Application US/09947925A Patent No. 6699690 GENERAL INFORMATION:
 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 AGCCACCACCAGTGAGCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin version 3.0
SEQ ID NO 4
Matches 471; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Homo sapiens
US-09-947-925A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 7
US-09-947-925A-4
                                                                                                                                    121
                                                                                                                                                                                         181
                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                               61
                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
                                                                                                                                                        셤
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                   음
                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                 셤
                                                                               ઠે
                                                                                                       요
                                                                                                                                                                                         ò
                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
```

240

셤

셤

ઠે

```
Sequence 2, Application US/08646301A
Patent No. 6194211
GENERAL INFORMATION:
APPLICANT: Huber, Brian E.
TITLE OF INVENTION: Transcriptional Regulatory Sequence of Carcinoembryonic Patent No. 6194211
TITLE OF INVENTION: Antigen for Expression Targeting
FILE REFERENCE: PB1508USW
CURRENT APPLICATION UNMERR: US/08/646,301A
CURRENT FILING DATE: 1996-05-16
NUMBER OF SEQ ID NOS: 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          220 TGACAGACCCAAGGCCCAGACACAGCAGAGGTCCGTGCTGGGGGAGAGCGGGTCGTCTGT 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  280 TATGGAACAGGGGTCCAAACAAGCTTGCTTCTCAGAGCATCTTCTGGGGAACTGAATATA 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         400 GATTCCTGAACAGAGACGCACCCATGACCCAGGAAAATGCTTCTATCCCT 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      460 GAGAGGACGACAGCACAGAAGGAGGACAGCAGGGCCAACAGTCACAGCACCCCTG 519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               340 AACAGAAAGGGGAAGAGGAGGAGGACAAAAGAGACAGAAATGAGAGGGGAGGGGATAGAG 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         156 TGACAGACCCAAGGACAGAACACAGAGGACAGCACTGGGGAAGACAGGTTGTCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      216 CAGGGGATGGGGGTCCATCCACCTT---GCCGAAAAGATTTGTCTGAGGAACTGA---A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATAGAAGGGAAAAAAGAGGAGGACAAAAGAGGCCAGAAATGAGAGGGGAGGGGACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 329 GACACCTGAATAAAGACCACACCCATGACCCACGTGATGCTGAGAAGTACTCCT-GCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             388 AGGAAGAGACTCAGGGCAGAGGGAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                 APPLICANT: GOLDENBERG, DAVID M.

APPLICANT: GOLDENBERG, DAVID M.

TITLE OF INVENTINENT HANS J.

TITLE OF INVENTINENT ALONG MUNDOTHERAPY FOR CHRONIC MYELOCYTIC LEUKEMIA FILL REPERENCE: 01873-1055

CURRENT APPLICATION NUMBER: US/09/924,103

CURRENT FILMG DATE: 2001-08-08

NUMBER OF SEQ ID NOS: 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31,
                                                                                                                                                                                                                                                                                                                                                                                                                                          6
                                                                                                                                                                                                                                                                                                                                                                                        Query Match 33.2%; Score 156.6; DB 4; Length 2073; Best Local Similarity 76.0%; Pred. No. 1.2e-37; Matches 247; Conservative 0; Mismatches 69; Indels 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 3774;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 94; DB 3; Length 377 Pred. No. 1.7e-18; 0; Mismatches 50; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            448 A-CAAAACGITCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           520 ACCAGAGCATTCCTGGAGCTCAAGC 544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 47, 19.9%;
Best Local Similarity 69.5%;
Matches 185; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                ; ORGANISM: Homo sapiens US-09-924-103-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             . . .
                                                                                                                                                                                                                                               SEQ ID NO 1
LENGTH: 2073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-646-301A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-646-301A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    569
                                                                                                                                                                                                                                                                                              TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE:
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <del>a</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
14181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14302 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGGAAAAAAGAGGGGGGGCACAAAAGA 14361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14062 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14122 GGCATCATCCCACCTTCCCAGAGCCCTGGAGGCATGGGGAGACCCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301 GGCAGAAATGAGAGGGGAGGGGACAGAGGACACCTGAATAAAGACCACACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361 CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGAGGGAAGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14482 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 14532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                           APPLICANT: Yu, De-Chao
APPLICANT: Hi, Yuanhao
APPLICANT: Henderson, Denel R.
APPLICANT: Henderson, CELL-SPECIFIC ADENOVIRUS VECTORS
TITLE OF INVENTION: CELL-SPECIFIC ADENOVIRUS VECTORS
TITLE OF INVENTION: COMPRISING AN INTERNAL RIBOSOME ENTRY SITE
FILE REFERENCE: 348022001700
CURRENT PILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/192,156
PRIOR APPLICATION NUMBER: 60/192,156
PRIOR APPLICATION NUMBER: 60/192,156
NUMBER OF SEQ ID NOS: 35
SOFTWARE: FRASESQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 4; Length 15056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 99.8%; Score 471; DB 4; Le
Best Local Similarity 100.0%; Pred. No. 9.6e-133;
Matches 471; Conservative 0; Mismatches 0;
                                                                          GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTT
                                                                                                                                                                                                                                     Sequence 14, Application US/09814351
Patent No. 6692736
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THER INFORMATION: CEA TRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 14
LENGTH: 15056
                                                                                                                                                                                           RESULT 9
US-09-814-351-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-814-351-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                          421
```

ઠે a ઠે a ò 셤 g δ 윱

ઠે

a ò a ò g

ઠે

4 CACCACCAGTGAGCCTTT

g

; Sequence 1, Application US/09924103

RESULT 10 US-09-924-103-1

셤

8

ઠે

셤 ð

셤 Š

```
1722 ArcArcccaccrrcaca-accacraaadaccardegeadaccres---craccreserrr 1777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1778 crigcarcacaaadaaaaraarccccaadriccgarrcccagggcrcrgrargrggaggr 1837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1722 Arcarcciaccricaca-agcacraaagagcargggaggaccrgg---cragcrgggrrr 1777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1778 CTGCATCACAAAGAAAATAATCCCCCAGGTTCGGATTCCCAGGGCTCTGTATGTGGAGCT 1837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGTAAACAGTGAGCTCCTATCCAGCCCCCAGAGCCACCTCTGTCTCTTCTTCTTGCTGGGC 1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1838 gácadactroadoccados ana desa desentrados desentrados de desentros de desentros de desentros de desentrados de defensión de defensi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Huber Brian
APPLICANT: Huber Brian
APPLICANT: Huber Brian
TITLE OF INVENTION: Molecular Constructs Containing a Carcinoembryonic
TITLE OF INVENTION: Antigen Regulatory
TITLE OF INVENTION: Sequence
FILE REFERENCE: PRIOSOTIOS
CURRENT FILING DATE: 2001-09-06
PRIOR APPLICATION NUMBER: US/09/947,925A
CURRENT FILING DATE: 1993-11-19
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PALENTIN VERSION 3.0
SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               I5-----GI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----GT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACAGACCCAAGGACAGAACACAGGGGGGGGGCAGTGGGGGAAGACAGGTTGTCCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 CACCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 64 ATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGGACCCTGCTGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                      31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 3774;
                                                                                                                                                                                                                                                                                                                                                               Length 3774;
                                                                                                                                                                                                                                                                                                                                                                                                                                   50; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               124 CTCTGTCACAAAGGAAAATAATCCCCCTGGT-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4 CACCACCAGTGAGCCTTTTTTTAGCCCCCAGAGCCACCT
                                                                                                                                                                                                                                                                                                                                                            Score 94; DB 3;
Pred. No. 1.7e-18;
0; Mismatches 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.7e-18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 94; DB 4;
Pred. No. 1.7e-18
); Mismatches 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CICTGICACAAAGAAAAIAAICCCCCIGGI----
CURRENT APPLICATION NUMBER: US/08/154,712B
CURRENT FILING DATE: 1993-11-19
NUMBER OF SEQ ID NOS: 36
SEQ TWARE: Patentin version 3.0
SEQ ID NO 5
LENGTH: 3774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1898 AGGGGACAGGGTGCACCAGCCTTGC 1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           217 AGGGGATGGGGGTCCATCCACCTTGC 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 5, Application US/09947925A ; Patent No. 6699690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19.9%;
                                                                                                                                                                                                                                                                                                                                                            19.9%;
ilarity 69.5%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 185; Conservative
                                                                                                                                                                                                                     ; TYPE: DNA
; ORGANISM: Homo sapiens
US-08-154-7128-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 3774
                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Sim
Matches 185;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-947-925A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 5, Application US/08481968A
Fatent No. 6300490
GENERAL INFORMATION:
APPLICANT: Huber, Brian
APPLICANT: Richards, Cynthia
TITLE OF INVENTION: Transcriptional Regulatory Region
TITLE OF INVENTION: Transcriptional Regulatory Region
TITLE OF INVENTION: Transcriptional Regulatory Region
TITLE OF INVENTION: 1998-06-07
CURRENT APPLICATION NUMBER: US/08/481,968A
CURRENT FILING DATE: 1998-06-07
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin version 3.0
SEQ ID NO 5
SEQ ID NO 5
LENGTH: 3774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 5, Application US/08154712B
Patent No. 6337209
GENERAL INFORMATION:
APPLICANT: Huber, Brian
APPLICANT: Richards, Cynthia
TITLE OF INVENTION: Molecular Constructs Containing a Carcincembryonic Antigen Regu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           щ
:
                                                                                  1722 ATCATCCCACCTTCACA-AGCACATAAAGAGCATGGGGAGACCTGG---CTAGCTGGGTTT 1777
                                                                                                                                                                                                                                                                                                                                                                                                     1778 CIGCATCACAAAAAAAAAATAATCCCCAAGATTCCCAGGCCTCTGTATGTGGAGCT 1837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1778 CTGCATCACAAAGAAATAATCCCCCAGGTTCGGATTCCCAGGGCTCTGTATGTGGAGCT 1837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1662 CAGTAAACAGTGAGCTCCTATCCAGCCCCAGAGCCACCTCTGTCACCTTCCTGCTGGGC 1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1722 ATCATCCCACCTTCACA-AGCACTAAAGAGCATGGGGAGACCTGG----CTAGCTGGGTTT 1777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           156
                                                                                                                                                                                   156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCATCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGGTTT 123
                                                                                                                                                                                                                                                                                                                              157 GACAGACCCAAGGACAGAACACAGCAGAGGTCAGCACTGGGGAAGACAGGTTGTCCTCCC 216
                                     64 ATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       157 GACAGACCCAAGGACAGAACACAGCAGAGGTCAGCACTGGGGAAGACACGTTGTCCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 3774;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4 CACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       50; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 19.9%; Score 94; DB 3; I
Best Local Similarity 69.5%; Pred. No. 1.7e-18;
Matches 185; Conservative 0; Mismatches 50;
                                                                                                                                                                                   CTCTGTCACAAAGGAAAATAATCCCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGGACAGGGGTGCACCAGCCTTGC 1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1898 AGGGACAGGGTGCACCAGCCTTGC 1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                217 AGGGGATGGGGGTCCATCCACCTTGC 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            217 AGGGGATGGGGGTCCATCCACCTTGC 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TYPE: DNA
; ORGANISM: Homo sapiens
US-08-481-968A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 12
US-08-481-968A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
US-08-154-712B-5
                                                                                                                                                                               124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             64
```

셤

ò

원

ઠે

g

ò

셤

ò

ઠે

```
쉱
                                                                                                                            g
                                                                                                                                                                       ò
                                                                                                                                                                                                             원
                  ò
                                                                                              ò
                                                                                                                                                                                                                                                     à
                        157 GACAGACCCAAGGACAGAACACAGAGGTCAGCACTGGGGAAGACAGGTTGTCCTCCC 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76 TCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGCGTTTCTCTGTCACAAA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        136 GGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAGCAGAGGTCAGCACTG 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1; Length 7218;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 15.1%; Score 71.2; DB 1; Length 7 Best Local Similarity 4.0%; Pred. No. 1.9e-11; Matches 16; Conservative 236; Mismatches 144; Indels
                                                                                                                                                                                                                                                                                                                                                                                                ALDEADSE: FOLEY & LATGUET
STREET: 1800 Diagonal Road, Suite 500
CITY: Alexandria
STATE: VA
COUNTRY: USA
ZIP: 22313-0299
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: BATCOMPUTER: OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/232,463
                                                                                                                                                                                     US-08-232-463-14/c
; Sequence 14, Application US/08232463
; Patent No. 5570367
; GENERAL INFORMATION:
APPLICANT: DORNER, F.
; APPLICANT: SCHEIFLINGER, F.
; APPLICANT: FALKNER, F. G.
; TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS
; CORRESPONDENCES: 5.2
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: FOLEY & Lardner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30472/114 IMMU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION: 435
PRIOR APPLICATION DATA:
APPLICATION WIMBER: US/07/935,313
FILING DATE:
APPLICATION WIMBER: EP 91 114 300.6
FILING DATE: 26-04G-1991
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET WUMBER: 30472/114 IMMT
TELECOMMUNICATION INFORMATION:
                                                                                                  217 AGGGATGGGGTCCATCCACCTTGC 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEX: 899149
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 7218 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: (703)836-9300
TELEFAX: (703)683-4109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     , CLONE: pTZgpt-F18
US-08-232-463-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                  셤
                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
ò
                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
```

Search completed: December 11, 2004, 08:49:45 Job time : 92 secs THIS PAGE BLANK (USPTO)

Sequence 10, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 97812, A Sequence 8715, Ap Sequence 8715, Ap Sequence 56, Appli Sequence 310, Appli Sequence 311, Appli Sequence 340, Appli Sequence 341, Appli

Sequence 1314, Apple Sequence 5, Appli Sequence 1, Appli Sequence 1, Appli Sequence 2031, A Sequence 2011, Apple Sequence 177, Apple Sequence 177, Apple Sequence 177, Apple Sequence 169, Apple Sequence 169,

Sequence 169, App Sequence 127633, Sequence 127633, Sequence 311, App

Scoring table:

Searched:

Database

Perfect score:

Sequence:

OM nucleic

Run on:

```
AGCCACCACCACCAGGGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 AGCCACCACCAGCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 7, Application US/09151376
Publication No. US20030044383A1
GENERAL INFORMATION:
APPLICANT: Henderson, D.R.
APPLICANT: Henderson, D.R.
TITLE OF INVENTION: TISSUE SPECIFIC VIRAL VECTORS
FILE REFERENCE: 34802200021
CURRENT PELLICATION NUMBER: US/09/151,376
CURRENT FILING DATE: 1998-00-10
BARLIER APPLICATION NUMBER: 08/659,753
EARLIER APPLICATION NUMBER: 08/659,753
BALLIER APPLICATION NUMBER: 08/69,753
BALLIER FILING DATE: 1995-06-26
BARLIER FILING DATE: 1995-06-27
NUMBER OF SEQ ID NOS: 71
SOFTWARE: Patentin Ver. 2.0
                                                           0.05-09-224-103-1

0.05-09-224-103-1

0.05-10-027-632-97812

0.05-10-027-632-8715

0.05-09-954-456-56

0.05-09-954-456-56

0.05-09-954-456-56

0.05-09-954-456-56

0.05-10-107-2317

0.05-10-107-0313-1

0.05-10-107-0313-1

0.05-10-107-0313-1

0.05-10-107-0313-1

0.05-10-107-0313-1

0.05-10-107-0313-1

0.05-10-107-0313-1

0.05-10-107-0314-1

0.05-10-107-0314-1

0.05-10-107-0314-1

0.05-10-107-0314-1

0.05-10-107-0314-1

0.05-10-107-0314-1

0.05-10-107-0314-1

0.05-10-107-0314-1

0.05-10-107-0314-1

0.05-10-107-0314-1

0.05-10-107-0314-1

0.05-10-107-0314-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 472; DB 10;
100.0%; Pred. No. 2.8e-136;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-025-380-169
US-10-027-632-127633
US-10-027-632-127633
US-09-920-300A-311
                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-144-649A-177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.
Matches 472; Conservative
                                                                                                                                                                                                                                                                                                                                                                                         387
387
460
460
676
676
                                                                                                                                                            2974
22974
22974
22974
22974
22974
22975
22975
22975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo sapiens
RESULT 1
US-09-151-376-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-151-376-7
                                                                                                                                                            27
27
27
27
27
27
27
69
4.69
                                                                                                                                                                                                                                                                                                                                                         60.6
471
432.4
350.4
156.6
120.8
120.8
99.2
99.2
                                                                                                                                                                                                                                                                                                                                                                                         57.6
57.6
57.2
57.2
57.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH:
 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 7, Appl
                                                                                                       December 11, 2004, 07:58:39; Search time 453 Seconds (without alignments) 5744.772 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Ag
Sequence 7, Ag
Sequence 54, A
Sequence 7, Ag
Sequence 54, A
                                                                                                                                                                                                        1 AGCCACCACCAGGAGCCT.....ACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rubismed Applications Nat.

(cgn2 6/ptodata1/pubpna/USO7 PUBCOMB.seq:*
(cgn2 6/ptodata1/pubpna/USO6 TWR PUB.seq:*
(cgn2 6/ptodata1/pubpna/USO6 FWR PUB.seq:*
(cgn2 6/ptodata1/pubpna/USO6 FWR PUB.seq:*
(cgn2 6/ptodata1/pubpna/USO7 WEW PUB.seq:*
(cgn2 6/ptodata1/pubpna/USO8 NEW PUB.seq:*
(cgn2 6/ptodata1/pubpna/USO8 NEW PUB.seq:*
(cgn2 6/ptodata1/pubpna/USO8 PUBCOMB.seq:*
(cgn2 6/ptodata1/pubpna/USO8 PUBCOMB.seq:*
(cgn2 6/ptodata1/pubpna/USO8 PUBCOMB.seq:*
(cgn2 6/ptodata1/pubpna/USO8 NEW PUB.seq:*
(cgn2 6/ptodata1/pubpna/USO8 PUBCOMB.seq:*
(cgn2 6/ptodata1/pubpna/USO8 NEW PUB.seq:*
(cgn2 6/ptodata1/pubpna/USO8 PUBCOMB.seq:*
             GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-151-376-7

US-09-151-376-54

US-10-139-089-7

US-10-139-089-54

US-10-139-089-54

US-10-922-873-7

US-09-947-925A-4

US-09-947-925A-4

US-09-914-135-14

US-09-914-35-14

US-09-914-35-14
                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                          4085731 segs, 2756760397 residues
                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Published Applications NA:
                                                                            - nucleic search, using sw model
                                                                                                                                                                                                                                         IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                         Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                        US-10-045-116-1
472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    111:
123:
133:
144:
165:
176:
179:
179:
179:
179:
```

ö

Gaps

; 0

Length 472; Indela 9 9 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGGACCCTGCTGGG 120

61 61

ò 셤

Seguence 14, Appl Seguence 14, Appl

Sequence 4, Appli

Sequence 1, Sequence 4,

11288 11288 15056 15056 15056

4472 4472 4772 4772 4771 1744 1174

Score

Result No.

GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCCATGGGGAGACCCGGGGACCCTGGG

셤

ò

ò 셤

a

셤 ઠે 용 ઠ g

ઠે

```
APPLICANT: Lamparski, Henry
Schurt, Eric
Henderson, Daniel
TITLE OF INVENTION: ADENOVIRUS VECTORS SPECIFIC FOR CELLS
EXPRESSING CARCINOEMBRYONIC ANTIGENS AND METHODS OF USE
                                                                                               420
                                                                                                                      GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGGACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACTCTGTCACTTCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 AGCCACCACCAGGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                               Gape
                                                                                                                                                                                                                       472
                                                                                                                                                                                 421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                      421 GCAGACCAGACAGTCACAGGGGCTTGACAAAACGTTCCTGGAACTCAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: CA

COUNTRY: USA

ZIP: 94304-1018

ZIP: 94304-1018

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: TEM PC compatible

COMPUTER: TEM PC compatible

CORPUTER: TEM PC COMPATIBLE

SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION NUMBER: US/10/045,116

FILING DATE: 23-Oct-2001

CLASSIFICATION NUMBER: US/10/045,116

PILING DATE: 23-Oct-2001

CLASSIFICATION NUMBER: US/09/033,555A

ATTORNEY/AGENT INFORMATION:

REDISTRATION NUMBER: 40,130

REGISTRATION NUMBER: 40,130

REFERENCE/DOCKET NUMBER: 34802-30005.00

TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 472; DB 14;
100.0%; Pred. No. 2.8e-136;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 25
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 PAGE MILL ROAD
CITY: PALO ALTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEX: 706141 MRSNFOERS SFO
INFORNATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 472 base pairs
                                                                                                                                                                                                                                                                                                       US-10-045-116-1
; Sequence 1, Application US/10045116
; Publication No. US20030026792A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (415) 494-0792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 472; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-045-116-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                 301
                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                               g
                                                                                                                                     g
                                                                                                                                                                                                               셤
                                                                                            ઠે
                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTCTCTGTGCACAAAGGAAATAATCCCCCTGGTGACAGACCCAAGGACAGAACACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCGAAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGGGGGAGGACAAAAAG 300
                                                                                                                                                             300
                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAAGACCCGGGAACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTCTCTCTCTCAAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361 CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGAGGGAAGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTCTCTGTCACAAAGGAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                     TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                    cadaddricadcactidggdaadacaggricitcitccagggdargggggiccarccar
                                                                                                                                                               GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGGGACAAAAGA
                                                                                                                                                                                                    241 GCCGAAAAGATTTGTCTGAGGAACTGAAATAGAAGGGAAAAAAGAGGGGGGGACAAAAGA
                                                                                                                                                                                                                                               GGCAGAAATGAGGGGGGGGGGCACAGAGACACCTGAATAAAGACCACACCATGACCCA
                                                                                                                                                                                                                                                                                        301 GGCAGAAATGAGAGGGGAGGGGACAGAACACCTGAATAAAGACCACACCATGACCCA
                                                                                                                                                                                                                                                                                                                                 1 AGCCACCACCCAGGGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                         GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                 GCAGACCAGACAGTCACAGCAGCCTTGACAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: Description of Unknown Organism: Unknown US-09-151-376-54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 54, Application US/09151376

Publication No. US20030044383A1

GENERAL INFORMATION:
APPLICANT: Henderson, D.R.
TILLE OF INVENTION: TISSUE SPECIFIC VIRAL VECTORS
FILE REFERENCE: 34802200021
CURRENT APPLICATION NUMBER: US/09/151,376
CURRENT APPLICATION NUMBER: 08/669,753
EARLIER APPLICATION NUMBER: 08/669,753
EARLIER PILING DATE: 1996-06-26
EARLIER PILING DATE: 1996-06-26
EARLIER FILING DATE: 1996-06-27
NUMBER OF SEQ ID NOS: 71
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 54
LENGTH: 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 472; DB 10; Best Local Similarity 100.0%; Pred. No. 2.8e-136; Matches 472; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 2
US-09-151-376-54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                             181
                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
                                    121
                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
```

셤

ठ

g

ઠે

셤 ઠ 요 ò

ઠ

240 240 300

420

```
GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGAGGACAAAAGA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCAGAAATGAGAGGGAGGGACAGGACACCTGAATAAAGACCACCCATGACCCA 360
                    61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGGACCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 GGCAGAAATGAGAGGGGAGGGACAGAAGACACCTGAATAAAGACCACACCATGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421 GCAGACCAGACAGTCACAGCCTTGACAAAACGTTCCTGGAACTCCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: Unknown US-10-139-089-54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Schuur, B.R.
APPLICANT: Schuur, B.R.
APPLICANT: Schuur, B.R.
TITLE OF INVENTION: TISSUE SPECIFIC VIRAL VECTORS
FILE REFERENCE: 34602200021
CURRENT APPLICATION NUMBER: US/10/139,089
CURRENT FILING DATE: 2002-05-02
RRIOR APPLICATION NUMBER: 08/495,034
RRIOR APPLICATION NUMBER: 09/509,591
RRIOR APPLICATION NUMBER: 09/509,591
RRIOR APPLICATION NUMBER: 09/509,591
RRIOR APPLICATION NUMBER: 09/151,376
RRIOR APPLICATION NUMBER: 09/151,376
RRIOR APPLICATION NUMBER: 09/033,428
RRIOR APPLICATION NUMBER: 09/033,428
RRIOR APPLICATION NUMBER: 09/033,555
RRIOR APPLICATION NUMBER: 09/033,555
RRIOR APPLICATION NUMBER: 09/033,555
RRIOR APPLICATION NUMBER: 09/033,333
RRIOR APPLICATION NUMBER: 09/033,333
RRIOR APPLICATION NUMBER: 09/033,333
RRIOR APPLICATION NUMBER: 09/033,333
RRIOR PILING DATE: 1998-03-02
RRIOR PILING DATE: 1998-03-02
RRIOR RILING DATE: 1998-03-02
RRIOR RILING DATE: 1998-03-02
RRIOR APPLICATION NUMBER: 09/033,333
RRIOR RILING DATE: 1998-03-03
RRIOR APPLICATION NUMBER: 09/033,333
RRIOR RILING DATE: 1998-03-03
RRIOR APPLICATION NUMBER: 09/033,333
RRIOR RILING DATE: 1998-03-03
RRIOR APPLICATION NUMBER: 09/033,333
RRIOR APPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 472; DB 15; Best Local Similarity 100.0%; Pred. No. 2.8e-136; Matches 472; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Sequence 54, Application US/10139089; Publication No. US20030152553A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Unknown
                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                        원
                                                                                                                   8 8
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                             240
                                                                                                                                                                                                                                   240
TTTCTCTCTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG 180
                                                                                                                                                                                                                                                                                                         GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGGGCGAAAAAGA 300
                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                     121 TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                           181 cadadercadeacrescanas caderrerecences candes de concentration de la concentration 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCAGAAATGAGGGGGGGGGCACAGAGGACACCTGAATAAAGACCACCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCTGTTG
                                                                                                                                                    1 AGCCACCACCAGTGAGCCTTTTTTTTTTTGGCCCCCAGGCCACCTCTGTCACCTTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCAGACCAGACAGTCACAGCGCCTTGACAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCCAGGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 7, Application US/10139089;
Publication No. US20030152553A1
GENERAL INFORMATION:
APPLICANT: Schuur, B.R.
TITLE OF INVENTYON: TISSUE SPECIFIC VIRAL VECTORS;
FILE REFERENCE: 34602200221
CURRENT APPLICATION NUMBER: US/10/139,089
CURRENT FILING DATE: 2002-05-02
PRIOR APPLICATION NUMBER: 08/495,034
PRIOR FILING DATE: 1996-06-26
PRIOR APPLICATION NUMBER: 09/495,034
PRIOR FILING DATE: 1995-06-27
PRIOR PILING DATE: 1996-06-27
PRIOR APPLICATION NUMBER: 09/131,376
PRIOR APPLICATION NUMBER: 09/131,428
PRIOR APPLICATION NUMBER: 09/033,428
PRIOR APPLICATION NUMBER: 09/033,428
PRIOR APPLICATION NUMBER: 09/033,555
PRIOR PILING DATE: 1998-03-02
PRIOR APPLICATION NUMBER: 09/033,555
PRIOR APPLICATION NUMBER: 09/033,555
PRIOR APPLICATION NUMBER: 09/033,333
PRIOR PILING DATE: 1998-03-02
PRIOR APPLICATION NUMBER: 09/033,333
PRIOR PILING DATE: 1998-03-03
PRIOR APPLICATION NUMBER: 09/033,333
PRIOR PILING DATE: 1998-03-03
PRIOR PILING DATE: 1998-03-03
PRIOR APPLICATION NUMBER: 09/033,333
PRIOR PILING DATE: 1998-03-03
PRIOR APPLICATION NUMBER: 09/039,763
PRIOR PILING DATE: 1998-03-03
PRIOR APPLICATION NUMBER: 09/039,763
PRIOR APPLICATION NUMBER: 09/039,763
PRIOR APPLICATION NUMBER: 09/039,763
PRIOR APPLICATION NUMBER: 09/039,763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 100.0%; Score 472; DB 15; Best Local Similarity 100.0%; Pred. No. 2.8e-136; Matches 472; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 7
LENGTH: 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: Homo sapiens
US-10-139-089-7
                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
121
                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                              셤
                                                                                                                                                ò
                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                         ሯ
                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
```

Gaps

```
Query Match
Best Local Similarity 100.
Matches 472; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Unknown
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                           241
121
                                                                   181
                                                                                                                                                                                       361
                                                                                                                                                                                                                                     421
                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                              g
                                                                                                            셤
                                                                                                                                   ò
                                                                                                                                                            g
                                                                                                                                                                                                                                    ઠે
                a
                                      8
                                                                                          ò
                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                               241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGGAGGACAAAAAGA 300
                                                                                                                                                                                                                                                              301 GGCAGAAATGAGAGGGGGGGGGGACAGACACCTGAATAAAGACCACACCCTGA 360
                                                                                                                                                                                                                                                                                               9
                                 9
                                                       1 AGCCACCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                     121 TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACA
                                                                                                                                                                                                                                                                                                            1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                       TITICICICICACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                     GGCAGAAATGAGGGGAGGGGACAGAGGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                           GCAGACCAGACAGTCACAGCCGTGGCTTGAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                            421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 472;
                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 7, Application US/10822873
; Beduence 7, Application US/10822873
; Publication No. US20040241857A1
; GENERAL INFORMATION:
    APPLICANT: Henderson, D.R.
    APPLICANT: Henderson, D.R.
    TITLE OF INVENTION: TISSUE SPECIFIC ADENOVIRAL VECTORS
    FILE REFERENCE: CELL-004CON2
    CURRENT FILING DATE: 2004-04-13
; PRIOR PLICATION NUMBER: US/10/822,873
; CURRENT FILING DATE: 2000-12-06
    PRIOR PLILING DATE: 1090-09-10
    PRIOR PLILING DATE: 1090-09-10
    PRIOR PLILING DATE: 1096-06-26
; PRIOR PLING DATE: 1096-06-27
; NUMBER OF SEQ ID NOS: 71
; SOFFWARE: Patentin Ver: 2.0
; SEQ ID NO 7
; LENGTH: 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.0%; Score 472; DB 18; Best Local Similarity 100.0%; Pred. No. 2.8e-136; Matches 472; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
US-10-822-873-7
                                                                                                                                                     181
                                                                                                       121
                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                      g 4
                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                            ò
                             셤
                                                       ò
                                                                            g
                                                                                                                                             ઠે
                                                                                                                                                                     a
                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                      8
```

```
300
                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                             240
                                                                                                      240
                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                       61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGAGGICAGCACTGGGGAAGACAGGITGICCTCCCAGGGGATGGGGGTCCATCCACCTT 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                1 AGCCACCCACTCCAGTGAGCCTTTTTTTTAGAGCCCCCAGAGCCACCTCTGTCACCTTCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCATCATCCCACCTTCCCAGAGCCCTGGAGGATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGAGGICAGCACIGGGGAAGACAGGITGTCCTCCCAGGGGAIGGGGICATCCACCTT
                                                                                          GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGA
                                                                                                                                                                                                                                                                                                                           301 GGCAGAAATGAGAGGGGAGGGACAGAGGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 AGCCACCACCAGCGAGTGAGCCTTTTTTTTAGCCCCCAGAGCCACCTCTGTCGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gapa
                                                                                                                                                                                                                                                                                                                                                                                                               GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                    GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; OTHER INFORMATION: Description of Unknown Organism: Unknown US-10-822-873-54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-822-873-54
US-10-822-873-54

US-10-822-873-54

| Sequence 54, Application US/10822873
| Publication No. US20040241857A1
| GENERAL INFORMATION:
| APPLICANT: Henderson, D.R.
| APPLICANT: Schuur, E.R.
| TITLE OF INVENTION: TISSUE SPECIFIC ADENOVIRAL VECTORS
| FILE REFERENCE: CELL-004CON2
| CURRENT APPLICATION NUMBER: US/10/822,873
| CURRENT FILING DATE: 2004-04-13
| PRIOR PILING DATE: 2000-12-06
| PRIOR PILION NUMBER: 09/732,169
| PRIOR FILIANTON NUMBER: 09/151,376
| PRIOR FILIATION NUMBER: 09/151,376
| PRIOR FILIATION NUMBER: 09/6626
| PRIOR FILING DATE: 1996-06-26
| PRIOR FILING DATE: 1995-06-26
| PRIOR FILING DATE: 1995-06-27
| NUMBER OF SEQ ID NOS: 71
| SOFTWARE: PatentIn Ver: 2.0
| SEQ ID NO 5: 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 472; DB 18;
100.0%; Pred. No. 2.8e-136;
tive 0; Mismatches 0;
```

셤 δ 셤 ઠે 요 ş a

ò

```
10294 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCTGTTG 10353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10534 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGGGGGGGCACAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10474 CAGAGGICAGCACTGGGGAAGACAGGITGTCCTCCCCAGGGGATGGGGTCCATCCACCIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGAGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10594 GGCAGAAATGAGAGGGGAGGGGACAGAGGACTGAATAAAGACCACACACGATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 AGCCACCACCAGCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTTCTTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCAGAAATGAGAGGGAGGGACAGAGGACACCTGAATAAAGACCACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10714 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAAGC 10764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10714 GCAGACCAGACAGTCACAGCGCCTTGACAAAAGGTTCCTGGAACTCAAGC 10764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99.8%; Score 471; DB 9; Length 11288; 100.0%; Pred. No. 1.4e-135; Live 0; Mismatches 0; Indels 0
                                                                                                     Sequence 1, Application US/09822634

Sequence 1, Application US/09822634

Patent No. US20020150556A1

GENERAL INFORMATION:
APPLICANT: Harrington, Kevin
APPLICANT: Bateman, Andrew
APPLICANT: Bateman, Andrew
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TISSUE
TITLE OF INVENTION: SPECIFIC GENE REGULATION THERAPY
FILE REFERENCE: 07039-289001
CURRENT APPLICATION NUMBER: 105/09/822,634
CURRENT FILING DATE: 2000-03-30
PRIOR PILING DATE: 2000-03-31
PRIOR PLILING DATE: 2000-03-31

NUMBER OF SEQ ID NOS: 18
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 4, Application US/09392822
; Patent No. US20010053352A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: CDS
LOCATION: (10804)...(10935)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.
Matches 471; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 11288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
US-09-392-822-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-822-634-1
421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGGGGGGGAGGAAGAACA 10713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCAGAAATGAGAGGGGAGGGACAGAGACACCTGAATAAAGACCACACCCATGACCCA 360
                                    360
                                                                                                                                  360
                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                        Sequence 4, Application US/09947925A
Sequence 4, Application US/09947925A
Patent No. US20020055482A1
GENERAL INFORMATION:
APPLICANT: Huber, Brian
TITLE OF INVENTION: Molecular Constructs Containing a Carcinoembryonic
TITLE OF INVENTION: Antigen Regulatory
FILE REFERENCE: PB1087US3
CURRENT APPLICATION NUMBER: US/09/947,925A
CURRENT PILING DATE: 1093-11-19
PRIOR APPLICATION NUMBER: US/08/154,712
PRIOR APPLICATION NUMBER: US/08/154,712
SEQ ID NOS: 36
SEQ ID NOS: 36
SEQ ID NOS: 36
SEQ ID NOS: 36
                                                                                         GGCAGAAATGAGAGGGGAGGGACAGAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                               10294 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10354 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGAGGGACAAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCAGAAATGAGAGGGAGGGGACAGAGGACACCTGAATAAAGACCACCATGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGAGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITCICICIGICACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 11288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 99.8%; Score 471; DB 9; Le
Best Local Similarity 100.0%; Pred. No. 1.4e-135;
Matches 471; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 11288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-947-925A-4
                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                241
                                                                                       301
                                                                                                                                                                    361
                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10654
```

셤

ઢ

셤 Š 셤 8 q ò g ઠે 셤 ઠ

ò

Gaps

ö

ö

120

```
14362 GGCAGAAATGAGAGGGAGGGACAGAGACACCTGAATAAAGACCACACCCATGACCA 14421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14062 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCAGAGCCACTCTGTCACCTTCCTGTTG 14121
                                                                                                                                                                                                                                                                                    TITCICICICICACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCGAAAAGATTTGTCTGAGGAACTGAAATAGAAGGGGAAAAAAAGAGGGGGCGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCAGAAATGAGAGGGGAGGGACACAGGACACCTGAATAAAGACCACACCCATGACCA
                                                                                                                                                                                                                                                                61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGCCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                 Сарв
                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             471
                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 15056;
                                                                                                                                    Length 15056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 99.8%; Score 471; DB 10; 1
Best Local Similarity 100.0%; Pred. No. 1.5e-135;
Matches 471; Conservative 0; Mismatches 0;
                                                                                                                                Query Match 99.8%; Score 471; DB 10; I
Best Local Similarity 100.0%; Pred. No. 1.5e-135;
Matches 471; Conservative 0; Mismatches 0;
SEQ ID NO 14
LENGTH: 15056
TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                  FEATURE:
CTHER INFORMATION: CEA
US-09-814-357-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; OTHER INFORMATION:
US-09-814-351-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 14
LENGTH: 15056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-814-351-14
                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                ò
             APPLICANT: Yu, De Chao APPLICANT: Yu, De Chao APPLICANT: Yu, De Chao APPLICANT: Henderson, Daniel
TITLE OF INVENTION: Ademovirus Vectors Containing Cell
TITLE OF INVENTION: Ademovirus Vectors Containing Cell
TITLE OF INVENTION: Status-Specific Response Elements and Methods of Use Thereof FILE REFERENCE: 34802201200
CURRENT APPLICATION NUMBER: US/09/392,822
CURRENT FILING DATE: 1998-09-09
EARLIER APPLICATION NUMBER: 60/099,791
BARLIER FILING DATE: 1998-09-10
NUMBER OF SEQ ID NOS: 9
SOFTWARE: PASISEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14121
                                                                                                                                                                                                                                                                                                                                                                                                                                                              14122 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGGACCCTGCTGGG 14181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14421
                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
US-09-814-357-14

i Sequence 14, Application US/09814357

i Publication No. US20030068307A1

i GENERAL INFORMATION:

i APPLICANT: Chen, Yu

APPLICANT: Chen, Yu

ITILE OF INVENTION: METHODS OF TREATING NEOPLASIA

CURRENT APPLICATION WHERE: US/09/814,357

CURRENT APPLICATION NUMBER: US/09/814,357

CURRENT APPLICATION NUMBER: 00/192,015

PRIOR FILING DATE: 2000-10-15

PRIOR FILING DATE: 2000-33-24

NUMBER OF SEQ ID NOS: 35

SOFTWARE: FABLSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14062 AGCCACCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCAGAAATGAGAGGGGAGGGGACAGAGACACCTGAATAAAGACCACCACCATGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGGGGAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 AGCCACCACAGTGAGCCTTTTTCTAGCCCCAGAGCCACCTCTGTCACCTTC
                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                Length 15056;
                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                Query Match
99.8%; Score 471; DB 9; Le
Best Local Similarity 100.0%; Pred. No. 1.5e-135;
Matches 471; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo Sapien
                                                                                                                                                                                                              LENGTH: 15056
                                                                                                                                                                                                                                                              US-09-392-822-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                 61
```

g

요 ઠે

요

윤 ઠે 셤 õ

ઠે

엄

ઠે

g

g

ઠે

ઠે

14303

420

240

ö

윱 ઠે 셤 ઠ 셤 ò 엄 ઠે 윱 8 요 ઠ 요 ઠે 셤

õ

```
14181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14361
                                                                                                                                                                                                                                                                          14121
                                                                                                                                                                                                                                                                                                                                                                                                                    14241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14481
                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                     14242 CAGAGGTCAGCACTGGGGAAGACAGGTTGTCCTCCCAGGGGATGGGGGTCCATCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14362 GGCAGABAATGAGAGGGGAGGGGACAGAGAGCACCTGAATAAAGACCCACCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14062 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                              14122 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                               1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCAGAAATGAGAGGGGAGGGACAGAGACACCTGAATAAAGACCACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGGGGACAGAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 10, Application US/10226820
| Sequence 10, No. US20030118555A1
| Publication No. US20030118555A1
| GENERAL INPORMATION:
| APPLICANT: Henderson, Daniel R. APPLICANT: Henderson, Daniel R. TITLE OF INVENTION: CONTAINING E3 AND METHODS OF USE THEREOF FILE OF INVENTION: CONTAINING E3 AND METHODS OF USE THEREOF FILE REFERENCE: 348022001300 | CURRENT APPLICATION NUMBER: US/10/226,820 | CURRENT APPLICATION NUMBER: US/99474,699 | PRIOR APPLICATION NUMBER: US/991474,699 | PRIOR PILING DATE: 1999-12-29 | PRIOR PILING DATE: 1999-12-30 | NUMBER OF SEQ ID NOS: 23 | NUMBER OF SEQ ID NOS: 23 | SOFTWARE: FRRUSSEQ FOR WINDOWN VERBION 4.0
                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                    Length 15056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 15056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCAGACCAGACAGTCACAGCCTTGACAAAACGTTCCTGGAACTCCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                     IndelB
                                                                                                                                                              Query Match 99.8%; Score 471; DB 14; L
Best Local Similarity 100.0%; Pred. No. 1.5e-135;
Matches 471; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99.8%; Score 471; DB 15; I 100.0%; Pred. No. 1.5e-135; Live 0; Mismatches 0;
                                                                           TOPOLOGY: BINGLE

SEQUENCE DESCRIPTION: SEQ ID NO: 25:
US-10-045-116-25
INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
LENGTH: 15056 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.
Matches 471; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 10
LENGTH: 15056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 14
US-10-226-820-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-226-820-10
                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Schuur, Eric
Henderson, Daniel
TITLE OF INVENTION: ADENOVIRUS VECTORS SPECIFIC FOR CELLS
EXPRESSING CARCINOEMBRYONIC ANTIGENS AND METHODS OF USE
                                                                                                                                                                                                                                                                      14301
                                                                                                                             14181
                                                                                                                                                                                                   14241
                                                                                                                                                                                                                                                                                                                          14421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                            120
                                                                                                                                                                180
                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                         9
                                            14062 AGCCACCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                    14122 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCCATGGGGAGACCCGGGGACCCTGCTGGG
                                                                                                                                                                                                GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                             301 GGCAGAAATGAGAGGGGAGGGGACAGAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGGGGGCAAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 02-Mar-1998
ATTORNEY/ABENT INFORMATION:
NAME: POLIZZI, CATHERINE M.
REGISTRATION NUMBER: 40,130
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 813-5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
ADDRESSE: MORRISON & FOERSTER
STRET: 755 PAGE MILL ROAD
CITY: PALO ALTO
STATE: CA
COUNTRY: USA
ZIP: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: RIOPPY disk
COMPUTER: 1BM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATON NUMBER: US/10/045,116
PRING DATE: 23-OCC-2001
CLASSIFICATION NUMBER: US/09/033,555A
BAPPLICATION NUMBER: US/09/033,555A
BRITAND DATA:
APPLICATION NUMBER: US/09/033,555A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: (415) 494-0792
TELEX: 706141 MRSNFOERS SFO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 25, Application US/10045116
Publication No. US20030026792A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Lamparski, Henry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-045-116-25
                                                                                                                                                                121
                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14482
                                                                                                                                                                                                                                                                                                                                                                                                                 14362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14422
```

1440 CAGAGGTCAGCACTGGGGAAAGACAGGTTGTC--CACAGGGGATGGGGGTCCATCCACCT 1497

```
승
음
                                               8 8 8
                                                                                                            g
                                                                                                                                    ò
                                                                                                                                                   ద
                     14121
                                                                                                                                                                               14421
                                                             14122 GGCATCATCCCACCTTCCCAGAGCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG 14181
                                                                                                     14182 TTTCTCTGTCACAAAGGAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG 14241
                                                                                                                                      14481
                                                                                                                                                                    300
                                                                                   180
                                                                                                                            240
                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                      241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGGGGGGCGACAAAAGA
                                                                                                                                                                                                            GGCAGAAATGAGAGGGGAGGGGACAGAGACACCTGAATAAAGACCACACCATGACCCA
                                                                                                                                                                                                                                                                                                         GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                              Sequence 1, Application US/10090238
; Sequence 1, Naplication US/10090238
; Publication No. US20030176377A1
; GENERAL INFORMATION:
    APPLICANT: The Scrippe Research Institute
; APPLICANT: Roaph A. Reisfeld
; APPLICANT: Ralph A. Reisfeld
; TITLE OF INVENTION: LIGAND AND METHODS OF USE THEREOF
; TITLE OF INVENTION: LIGAND AND METHODS OF USE THEREOF
; FILE REFERENCE: TSRI. 930.0
; CURRENT FILING DATE: 2002-03-02
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q ID NO 1
LENGTH: 3281
                                                                                                                                                                                                                                                                                                                                                            US-10-090-238-1
                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                               421
                                          61
                                                                                                                        8 B 8
                                                                                                                                                                                 8 S
                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                      ద
                셤
                                       8 6 8 6
                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                               ठ
                                                                                                                                                                                                                                                                                                              셤
```

1320

3,

Gaps

1379

CAGAGGTCAGCACTGGGG-AAGACAGGTTGTCCTCCCAGGGGATGGGGGTCCATCCACCT

181

q

ઠે

121 TTTCTCTGTCACAAAGGAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG 180

GGCATCATCCCACCTTCCCAGAGCCCTGGAGGATGGGGAGACCCGGGACCCTGCTGGG 120

61

ઠે

ద

8

ઠે

1321 GGCATCATCCCACCTTCCCCAGAGCCCTGGAGGATGGGGGAGCATGGGGA-CCTGCTGGG

1261 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG

1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCGTTCCTGTTG

91.6%; Score 432.4; DB 15; Length 3281; 98.9%; Pred. No. 9.8e-124; ive 0; Mismatches 1; Indels 4;

Query Match Best Local Similarity 98.9 Matches 467; Conservative

US-10-090-238-1

```
1558 AGGCAGAAATGAGAGGGGAGGGGACAGAGACCCTGAATAAAGACCACACCCATGACCC 1617
                                                                                                                                                                                   1618 ACGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGTCAGGGGCAGGAGGAGGAGGAC 1677
                                     1498 TGCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGAGGGGGACAAAAG 1557
                                                                             359
                                                                                                                                                            419
                                                                             AGGCAGAAATGAGAGGGAGGGACAGAGACACCTGAATAAAGACCACACCCATGACCC
                                                                                                                                                            AGCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                        completed: December 11, 2004, 10:03:43 le : 455 secs
                                                                             300
                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                             1678
240
                                                                                                                                                                                                                                                                                                                                          Search co
```

```
(without alignments)
5047.467 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                       472
1 AGCCACCACCAGTGAGCCT.....ACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                               December 11, 2004, 06:53:29 ; Search time 3792 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pending Patents NA Main:*

(cgn2_6/ptodata/1/pna/PCTUS1_COMB.seq:*
2: (cgn2_6/ptodata/1/pna/USO6_COMB.seq:*
4: (cgn2_6/ptodata/1/pna/USO6_COMB.seq:*
5: (cgn2_6/ptodata/1/pna/USO8_COMB.seq:*
6: (cgn2_6/ptodata/1/pna/USO8_COMB.seq:*
7: (cgn2_6/ptodata/1/pna/USO8_COMB.seq:*
7: (cgn2_6/ptodata/1/pna/USO8_COMB.seq:*
10: (cgn2_6/ptodata/1/pna/USO8_COMB.seq:*
11: (cgn2_6/ptodata/1/pna/USO8_COMB.seq:*
13: (cgn2_6/ptodata/1/pna/USO8_COMB.seq:*
14: (cgn2_6/ptodata/1/pna/USO8_COMB.seq:*
15: (cgn2_6/ptodata/1/pna/USO8_COMB.seq:*
16: (cgn2_6/ptodata/1/pna/USO8_COMB.seq:*
17: (cgn2_6/ptodata/1/pna/USO8_COMB.seq:*
18: (cgn2_6/ptodata/1/pna/USO8_COMB.seq:*
19: (cgn2_6/ptodata/1/pna/USO8_COMB.seq:*
10: (cgn2_6
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44308572 seqs, 20275418765 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                      OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IDENTITY NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                 US-10-045-116-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                   Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Database
                                                                                                                                                                                                                   Run on:
```

COMB. seq: *
COMB. seq: *
COMB. seq: *

otodata/

COMB. seq: *

/pna/US6012

pna/US6015

COMB. seq: *

otodata/

otodata/

todata/

1/pna/US6001

US6023A COMB.seq:* US6023B COMB.seq:* US6024 COMB.seq:*

pna/US6023B

pna/US6024

todata/

otodata/

pna/US6035_COMB.seq:*

ptodata/1

/pna/US6034

pna/US6031

/ptodata/1/

COMB. seq: *
COMB. seq: *

COMB. seq: *

pna/US6019

N

```
117: /cgn2_6/ptodata/1/pna/US6051_COMB.seq:*
118: /cgn2_6/ptodata/1/pna/US6052_COMB.seq:*
119: /cgn2_6/ptodata/1/pna/US6053_COMB.seq:*
120: /cgn2_6/ptodata/1/pna/US6054_COMB.seq:*
121: /cgn2_6/ptodata/1/pna/US6055_COMB.seq:*
123: /cgn2_6/ptodata/1/pna/US6056_COMB.seq:*
123: /cgn2_6/ptodata/1/pna/US6056_COMB.seq:*
124: /cgn2_6/ptodata/1/pna/US6057_COMB.seq:*
125: /cgn2_6/ptodata/1/pna/US6059_COMB.seq:*
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	quence 1,			54,	,	Sequence 54, Appl	7 =	;	9	4, Appli	4,	Seguence 1, Appli Seguence 25, Appl	4	'n	14,	equence 25,	10,	d)	m i	Segmence 12355, A	equence 1235	1403	o	ı, Appl	1,0	Sequence 26827, A	2. Appl	2,	7	27	52,	74,	74,	14,	Sequence 209	50	Sequence 53, Appl	T.	1346
SUMMARIES	DI	09-033-555-	-09-033-5-10-045-1	-10-139-089-	-10-139-089-	-10-822-873-7	US-10-822-873-54 US-10-486-3190-11	-10-486-319B	-US04-13487-1	-07-841-961-6	08-474-420-	-547-142	555A	-392-822-4	-392-822A-	09-814-357-1	10-045-116-2	10-226-820-1	-691-045-	8-227-3	-949-016	-940-774-1235	-940-774-1403	ģ	PCT-US03-06295-1	-1	50-324-185 50-172-272	24741-2	US-10-212-667	US-60-310-905	10-486-319A-	10-486-319B-5	0-486-319A-7	0-486-319	US-10-765-790-14	-09-947-916-2	319A-5	-486-31 -486-31	S-10-486-3198-7	S-09-949-016-13
	Length DB	472 15			72		3500 54		1288	1288	1288 9	11288 10	2026	5056	9505	5056 3	5056	15056 49	5056	5056	25321 40	5321 6	5321 6	01257 4	N.		5770 83			o	'n	ın ı	ıń :	3500	15862 61	401257 4		ט ח	500	272 4
* 6	'	100.0	100.0	100.0	00	88	90		6	99.8	σ,	0 0		8.66	99.8	<u>.</u>	٠. م	o	o (n c		6	Q	e.	.i		9.1.6		4	4	•	B		۲.	٠ د د	55.8 8.8	n u	. 4		
	Score	472	472	472	7	~ 1	472	471		7	۲,	471	٠,	471	471	471	~ 1		,	471	٠.	7	471		33	N (4.064		50	50.	78.	78	7	∹.	36	63.	ρų	9 12		
Regult	NO.	п с	9 M	4	W.	ω ι	- α	, o	10	1	13	E :	12	16	17	18	19	50	21	7 6	24	25	56	c 27	58	איני פייני	3 5	3 2	33	34	32	99	37	8 0	n .			7 7 7	4	4

LIGNMENTS

```
RESULT 1
15-09-031-555-1
15 Sequence 1, Application US/09033555
1 GENERAL INFORMATION:
```

APPLICANT: Lamparski, Henry
APPLICANT: Behuur, Eric
APPLICANT: Schuur, Eric
APPLICANT: Henderson, Daniel
TITLE OF INVENTION: EXPRESSING CARCINOEMBRYONIC ANTIGENS AND METHODS OF USE
TITLE OF INVENTION: THEREOF
NUMBER OF SEQUENCES: 20
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: AND ALTO
CITY: PALO ALTO
STATE: CA
COUNTRY: USA
COMPUTER: Floppy disk
MEDIUM TYPE: PROPY disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARR: PEADABLE FORM:
MEDIUM TYPE: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARR: BELEATION DATA:
PLICATION NUMBER: US/09/033,555
FILING DATE:
CHRENT APPLICATION DATA:
PLICATION NUMBER: US/09/033,555 USE ö 180 240 180 300 300 360 420 420 240 360 9 9 1 AGCCACCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG 181 CAGAGGTCAGCACTGGGGAAGACAGGTTGTCCCCCCAGGGGATGGGGGTCCACCTT 241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGGGGCACAAAAGA GGCAGAAATGAGAGGGGGGGGGACAGAGACACCTGAATAAAGACCACACCATGACCCA GGCAGAAATGAGAGGGGAGGGACAGAGAGACCCTGAATAAAGACCACACCATGACCCA TTTCTCTCTCAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGAGGGACAAAAGA 1 AGCCACCACCAGCCATTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG 472 ö Query Match 100.0%; Score 472; DB 15; Length 472; Best Local Similarity 100.0%; Pred. No. 2.8e-114; Matches 472; Conservative 0; Mismatches 0; Indels 0; GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA FILLING DALES

CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: POLIZI, CATHERINE M.
REGISTRATION NUMBER: 940,130
REFERENCE/DOCKET NUMBER: 34802-30005.00
TELECHOMUNICATION INFORMATION:
TELEPHONE: (415) 913-5600
TELEFAX: (415) 913-5600
TELEFAX: (415) 94-0792
TELEPHONE: (415) 940-0792
TELEPHONE: (415) 913-5600
TELEFAX: (415) 913-5600
TELEFAX: (415) 92-0792
TELEPHONE: (415) 92-0792
TELEPHONE: (415) 93-0792
TOPOLOGY: linear ; US-09-033-555-1 121 181 241 301 301 421 g ò g g g 요 요 ð 셤 ð 8 ð õ ò ò

```
TITLE OF INVENTION: ADENOVIRUS CARCINOEMBRYONIC ANTIGENS AND METHODS OF USE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                         301 GGCAGAAATGAGAGGGGAGGGGACAGAGACACCTGAATAAAGACCACCATGACCCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361 CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGAGGAGGAGGAGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 AGCCACCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 GCCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                         472
                                                                                                                                               421 GCAGACCAGACAGTCACAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                      421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US/10/045,116
FILING DATE: 23-Oct-2001
CLASSITCATION. <URLOWN>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/033,555A
FILING DATE: 02-Mar-1998
ATTORNEY/AGET INFORMATION:
NAME: POLIZZI, CATHERINE M.
RESISTRATION NUMBER: 40,130
REFERENCE/DOCKET NUMBER: 34802-30005.00
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 813-5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 472; DB 45; ilarity 100.0%; Pred. No. 2.8e-114; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: WORRISON & FOERSTER
STREET: 755 PAGE MILL ROAD
CITY: PALO ALTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEX: 706141 MRSNFOERS SFO
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
ZIP: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                            Sequence 1, Application US/10045116
GENERAL INFORMATION:
APPLICANT: Lamparski, Henry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (415) 494-0792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 472 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 472; Conserv
                                                                                                                                                                                                                      RESULT 3
US-10-045-116-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-045-116-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                       ò
                                                                                                                      à
                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                          Schuur, Eric
Henderson, Daniel
TITLE OF INVENTION: ADENOVIRUS VECTORS SPECIFIC FOR CELLS
EXPRESSING CARCINOEMBRYONIC ANTIGENS AND METHODS OF USE
THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGATGGGGAGACCCGGGACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCAGAAATGAGAGGGGAGAGAGACACCTGAATAAAGACCACACCATGACCCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 472;
                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC compatible
CLASSIFICATION NUMBER: US/09/033,555A
FILING DATE: 02-MRT 108-
NAME: FOLICATION NUMBER: 40,130
REFERENCE/DOCKET NUMBER: 34802-30005.00
TELEFAX: (415) 813-5600
TELEFAX: (415) 813-5600
TELEFAX: (415) 813-5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 100.0%; Score 472; DB 15; Best Local Similarity 100.0%; Pred. No. 2.8e-114; Matches 472; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERST
STREET: 755 PAGE MILL ROAD
CITY: PALO ALTO
STATE: CA
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEX: 706141 MRSNFOERS SFO INFORMATION FOR SEQ ID NO: 1:
                                                                                               Sequence 1, Application US/09033555A
GENERAL INFORMATION:
APPLICANT: Lamparski, Henry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 472 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                               US-09-033-555A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-033-555A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                            RESULT
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

```
300
300
                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                 61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG 60
                                                                                                                                                                         241 GCCGAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGAGGACGACAAAAGA
                                                                                                                                                                                                                            GGCAGAAATGAGAGGGGAGAGAGAGACACCTGAATAAAGACCACACCATGACCCA
                                                                                       GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGGAAAAAAGAGAGGGGACAAAAAA
                                                                                                                                                                                                                                                                     301 GCCAGAAATGAGAGGGGAGGGGACAGAGACACCTGAATAAAGACCACACCATGACCA
                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                 421 GCAGACCAGACACTACACAGCCTTGACAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; OTHER INFORMATION: Description of Unknown Organism: Unknown
US-10-139-089-54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Henderson, D.R.
APPLICANT: Henderson, D.R.
TITLE OF INVENTION: TISSUE SPECIFIC VIRAL VECTORS
FILTLE OF INVENTION: TISSUE SPECIFIC VIRAL VECTORS
FILTLE OF INVENTION: TISSUE SPECIFIC VIRAL VECTORS
FILTLE OF TISSUE SPECIFIC VIRAL VECTORS
FILTRE DATE: 2002-05-02
PRIOR FILING DATE: 1996-06-27
PRIOR FILING DATE: 1996-06-27
PRIOR APPLICATION NUMBER: 09/509,591
PRIOR FILING DATE: 1996-09-10
PRIOR FILING DATE: 1998-09-10
PRIOR FILING DATE: 1998-09-10
PRIOR FILING DATE: 1998-09-10
PRIOR FILING DATE: 1998-09-10
PRIOR FILING DATE: 1998-03-02
PRIOR FILING DATE: 1998-03-02
PRIOR FILING DATE: 1998-03-02
PRIOR FILING DATE: 1998-03-02
PRIOR FILING DATE: 1997-03-03
PRIOR FILING DATE: 1997-03-03
PRIOR PLING DATE: 1997-03-03
PRIOR FILING DATE: 1997-03-03
PRIOR 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%; Score 472; DB 47; Best Local Similarity 100.0%; Pred. No. 2.8e-114; Matches 472; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Sequence 54, Application US/10139089; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 472
                                                                                                                                                241
                                                                                                        181
                                                                 181
                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                              421
                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                 셤
                                                                                                                                            ò
                                                                                                                                                                           셤
                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                 240
                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCATCATCCCACCTTCCCAGAGCCCTGGAGGATGGGGAGACCCGGGACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGGACCCTGCTGGG 120
                                                                                                          CTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGGGGGGCACAAAAGA 300
                                                                                                                                                121 TTTCTCTGTCACAAAGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                             1 AGCCACCACCAGTGAGCCTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                               GGCAGAATGAGAGGGGAGGGGACAGAGACACCTGAATAAAGACCACACCCATGACCA
                                                                                                                                                                                                                                                                       1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                     421 GCAGACCAGACAGTCACAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                             421 GCAGACCAGACAGTCACAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 472; DB 47;
ilarity 100.0%; Pred. No. 2.8e-114;
Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; ORGANISM: Homo sapiens
US-10-139-089-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 472; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 4
US-10-139-089-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                       361
                         181
                                                                                                          241
                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                           a
                                                                                                   ઠે
                                                                                                                                          요
                                                                                                                                                                         ò
                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                     g
```

420

```
CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGAGGAGGAGGACA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 GGCATCATCACCACCCTGCAGAGCCCTGGAGGAGAGCCCGGGAACCCCGGGACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGAGGGACAAAAGA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 TITCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                   . 241 GCCGABAGGTTTGTCTGGGGAACTGAAAATAGAAGGGAAAAAAGGGGCGACAAAGA
                                                                                                     121 TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACGCAAGGACAGAACAGA
                    GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGAGGGGCACAAAAGA
                                                                                   GGCAGAAATGAGAGGGGACAGAGGACACCTGAATAAAGACCACACCCATGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 AGCCACCACCCAGTGAGCCTTTTTTTTAGGCCCCCAGAGCCACCTCTGTCACCTTCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 cadadercadeacadadadadadadarecereceaggaardaggarecarecatr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%; Score 472; DB 62; Length 472; Best Local Similarity 100.0%; Pred. No. 2.8e-114; Matches 472; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: Description of Unknown Organism: Unknown
                                                                                                                                                                                                                                                                                                       US-10-822-873-54

i Sequence 54, Application US/10822873

j GENERAL INFORMATION:

APPLICANT: Henderson, D.R.

APPLICANT: Schuur, E.R.

ITILE OF INVENTION: TISSUE SPECIFIC ADENOVIRAL VECTORS:

FILE REFERENCE: CELL-004-CON2

CURRENT APPLICATION NUMBER: US/10/822,873

CURRENT APPLICATION NUMBER: 09/732,169

PRIOR FILING DATE: 2000-12-06

PRIOR APPLICATION NUMBER: 09/151,376

PRIOR PLING DATE: 1998-09-10

PRIOR FILING DATE: 1998-09-10

PRIOR FILING DATE: 1998-09-10

PRIOR FILING DATE: 1995-06-27

NUMBER OF SEQ ID NOS: 71

SOFUARE: PATENTE NOS: 71

SEQ ID NO 54

LENGTH: 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-822-873-54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                    241
                                                                                   301
                                                                                                              301
                                                                                                                                                361
                                                                                                                                                                                                                421
                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                          a
                                                                              ò
                                                                                                     원 상
                                                                                                                                                                        셤
                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTCTCTGTCACAAAGGAAATAATCCCCCTGGTGTGACAGACCCCAAGGACACACAG 180
                                                                                                                 240
                                                                                                                                    241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGAAAAAAAGGGGGACAAAAAGA 300
                                                                                                                                                                                                                                                                  301 GGCAGAAATGAGAGGGAGGGACAGAGGACACCTGAATAAAAGACCACACCCATGACCCA 360
                                                                                                                                                                                                                                                                                                                                            420
61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGACACCCGGGACCCTGCTGGG 120
                                                                                 GGCAGAAATGAGAGGGGAGGGGACAGAGGACACCTGAATAAAGACCACACCCCATGACCCA 360
                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 AGCCACCACAGTGAGCCTTTTTCTAGCCCCCAGAGCCACTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCATCATCCCACCTTCCCAGAGCCCTGGAGGATGGGGAGACCCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                             GCAGACCAGACAGCAGCCTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                        421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 7, Application US/10822873
; Sequence 7, Application US/10822873
; GENERAL INFORMATION:
; APPLICANT: Henderson, D.R.
APPLICANT: Henderson, D.R.
; TITLE OF INVENTION: TISSUE SPECIFIC ADENOVIRAL VECTORS
; FILE REFERENCE: CELL-004CCNZ
; CURRENT APPLICATION NUMBER: 05/732,169
; PRIOR FILING DATE: 2004-04-03
; PRIOR FILING DATE: 2000-12-06
; PRIOR PLICATION NUMBER: 09/732,169
; PRIOR PLICATION NUMBER: 09/151,376
; PRIOR FILING DATE: 1998-09-10
; PRIOR FILING DATE: 1998-06-06-26
; PRIOR FILING DATE: 1998-06-06-26
; PRIOR FILING DATE: 1995-06-27
; NUMBER OF SEQ ID NOS: 1
; SOFTWARE: PatentIn Ver: 2.0
; SED ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 100.0%; Score 472; DB 62; Best Local Similarity 100.0%; Pred. No. 2.8e-114; Matches 472; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 6
US-10-822-873-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-822-873-7
                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                            셤
                                                                                                                                      ద
                                                                                                                                                                              ઠ
                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                 ò
                                                                                                              ò
```

180

180

120

09

2625

180

2745

240

300

2865

420

360

ö

us-10-045-116-1.rnpm

ઠે 셤 ઠે 요

```
Sequence 1.9 Application PC/TUS0413487

Sequence 1. Application PC/TUS0413487

GENERAL INFORMATION:

APPLICANT: DONG, JIAN-YUN

APPLICANT: RUBINCHIK, SEMYON

TITLE OF INVENTION: CELL TYPE-SPECIFIC AND REGULATED GENE EXPRESSION CELLS

TITLE OF INVENTION: CELL TYPE-SPECIFIC AND REGULATED GENE EXPRESSION CELLS

TITLE FEFRENCE: MESC:014WO

CURRENT APPLICATION NUMBER: PCT/US04/13487

CURRENT FILING DATE: 2004-04-30

PRIOR FILING DATE: 2003-05-01

NUMBER: OF SEQ ID NOS: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 AGCCACCACCACCAGTGAGCCTTTTTTTAGCCCCCAGAGCCACCTCGTCGTTG 60
                                                                                                                                                                                                                  2506 AGCCACCCACCCAGTGAGCCTTTTTTTTAGCCCCCAGAGCCACCTCTGTCACCTTCTGTTG
                                                                                                                                                                                                                                                                                             2566 GGCATCATCCCACTTCCCAGAGCCCTGGAGAGCATGGGGAACACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                     121 TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                            2626 TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2746 GCCGAAAAGATTTGTCTGAGGAACTGAAATTAGAAGGGAAAAAAGAGGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2806 GGCAGAAATGAGAGGGGAGGGGACAGAGGACACCTGAATAAAGACCACACCATGACCA
                                                                                                                                                                                                                                                                           GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                  241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCAGAAATGAGAGGGGAGGGACAGAGACACCTGAATAAAGACCACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2926 GCAGACCAGACACCAGCAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 2976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó
                                                                                                                                                       ö
                                                                                                                                                                                              1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 11288;
                                                                                                                                                     Indele
                                                                                                               Query Match
99.8%; Score 471; DB 54; L
Best Local Similarity 100.0%; Pred. No. 9.9e-114;
Matches 471; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
99.8%; Score 471; DB 2; Le
Best Local Similarity 100.0%; Pred. No. 1.5e-113;
Matches 471; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; NAME/KEY: CDS
; LOCATION: (10804)..(10938)
PCT-US04-13487-1
; SEQ ID NO 11
; LENGTH: 3500
; TYPE: DNA
; ORGANISM: Homo Sapiens
US-10-486-3198-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 11288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                           61
                                                                                                                     Query Match
Best Local &
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                               윱
                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 9
US-10-486-319B-11
Sequence 11, Application US/10486319B
Sequence 11, Application US/10486319B
GENERAL INFORMATION:
TITLE OF INVENTION: Method and nucleic acids for the analysis of colon cancer
TITLE PEPERENCE: 82196
CURRENT APPLICATION NUMBER: US/10/486,319B
CURRENT FILING DATE: 2004-02-09
NUMBER OF SEQ ID NOS: 527
                                                                                                                                                                                                                    Sequence 11. Application US/10486319A
GENERAL INFORMATION:
APPLICANT: Epigenomics AG
TITLE OF INFORTION: Method and nucleic acids for the analysis of colon cancer
FILE REPERSNCE:
CURRENT APPLICATION NUMBER: US/10/486,319A
CURRENT FILING DATE: 2004-02-09
NUMBER OF SEQ ID NOS: 527
SEQ ID NO 11
LENGTH: 3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2626 TITCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTACAGACCCAAGGACAGAACACAG 2685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGACAAAAGA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301 GGCAGAAATGAGAGGGGAGGGGACAGACCTGAATAAAGACCACACCCATGACCCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2566 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCTGCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2746 GCCGAAAAGATTTGTCTGAGGAACTGAAATAGAAGGAGAAAAAAGAGGGGCACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1806 GGCAGAAATGAGAGGGGAGGGGACAGAGGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2866 CGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGCAGAGGAGGAGGACA
                        1 AGCCACCACCAGTGAGCCTTTTTTTTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCATCATCCCACCTTCCCAGAGCCCTGGAGGATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACACACAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                             2926 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 2976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 3500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421 GCAGACCAGACAGTCACAGCCTTGACAAAACGTTCCTGGAACTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 99.8%; Score 471; DB 54; Length 3 Best Local Similarity 100.0%; Pred. No. 9.9e-114; Matches 471; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo Sapiens
US-10-486-319A-11
                                                                                                                                                                                                                US-10-486-319A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
```

ઠે 셤 ઠે 요 ò ઠે

쉽

δ a ò

셤 ઠે

ઠે g ઠે 셤

ò 셤

ઠે

셤

```
10413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10474 cAGAGGICAGCACTGGGGAAGACAGGTTGICCTCCCAGGGGATGGGGGTCCATCCACCTT 10533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10294 AGCCACCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                        61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                    TITCICICICICACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGGGGCGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 AGCCACCACCCAGGCGTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCAGAAATGAGAGGGGAGGACAGAGGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10714 GCAGACCAGACAGTCACAGAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 10764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                           ö
                                                                                                                                                                  99.8%; Score 471; DB 4; Length 11288; 100.0%; Pred. No. 1.5e-113; ive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 4, Application US/08474420
GENERAL INFORMATION:
APPLICANT: HUBER, BRIAN
APPLICANT: RIGHARDS, CYNTHIA A
APPLICANT: AUSTIN, ELIZABETH A
TITLE OF INVENTION: NOVEL ENTITIES FOR CANCER THERAPY
NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: ROTHWELL, FIGG, ERNST & KURZ, P.C. STREET: SUITE 701 EAST TOWER, 555 13TH ST., N.W. CITY: BASHINGTON STATE: D.C. COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.25
SORTWARE APPLICATION DATA:
APPLICATION NUMBER: U9/08/474,420
FILING DATE: 7-JUNE-1995
CLASSIFICATION: 435
RICH APPLICATION DATA:
APPLICATION NUMBER: US 08/154,712
FILING DATE: 19-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 2004
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                         CDS
10804..10866
                                                                                                                                                                                                           Matches 471; Conservative
                                                                                     mat_peptide
10281..11288
                                                                                                                                                                                        Best Local Similarity
                     NAME/KEY:

. LOCATION:

FEATURE:

I NAME/KEY:

LOCATION:

US-07-841-961-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 12
US-08-474-420-4
                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                       10294 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCTGTTG 10353
                                                                                                                                                                                                                                                                                                                                       10594 GGCAGAAATGAGAGGGGGGGGGACAGAGGACACCTGAATAAAGACCACACCCATGACCCA 10653
                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGAGGAGACAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                 301 GGCAGAAATGAGAGGGGAGGGACAGAGACACCTGAATAAAGACCACACCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10714 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 10764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 6, Application US/07841961
GENERAL INFORMATION:
APPLICANT: Huber, Brian
APPLICANT: Krenitsky, Thomas A
APPLICANT: Krenitsky, Thomas A
TITLE OF INVENTION: NOVEL ENTITIES FOR CANCER THERAPY
NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
ADDRESSEE: Donald Brown; Dike, Bronstein, Roberts &
ADDRESSEE: Cushman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 110 Water Street
CITY: Boston
STREET: 120 Water Street
CITY: Boston
STATE: Massachusetts
COUWTRY: US
ZIP: 12109-4280
COMPUTER READABLE FORM:
MEDIUM TYPE: Flopy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PAPLICATION DATA:
APPLICATION NUMBER: US/07/841,961
FILING DATE: 1992026
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Brown, Donald
REGISTRATION NUMBER: 20845
REFERENCE/DOCKET NUMBER: 40361-CIP2
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECAM. 617:523-3400
TELECAM. 617:523-3400
TELEX: 200291 STRE UR
INFORMATION POR SEQ ID NO: 6: SEQUENCE CHARACTERISTICS:
LENGTH: 11288 base pairs
TYPE: NUCLEIC ACID
STRANDENESS: single
TOWNEY: Innear
TOWNEY: Innear
TOWNEY: NUMBER: ALIGER
TYPE: NUCLEIC ACID
STRANDENESS: SINGLE
TYPE: NUCLEIC ACID
TELECOMMUNICATION INDEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-07-841-961-6
                                                                61
```

```
10294 AGCCACCACCAGTGAGCCTTTTTTTAGCCCCCAGAGCCACCTCTGTCACCTTCTGTTG 10353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGAACCCTGCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 AGCCACCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 11288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indela
ELIZABETH A NOVEL ENTITIES FOR CANCER THERAPY
              TITLE OF INVENTION: NOVEL ENTITIES FOR CANCER THER NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
ADDRESSEE: SCHWELL, FIGG, ERNST & KURZ, P.C.
STREET: SUITE 701 EAST TOWER, 555 13TH ST., N.W. STREET: D.C.
COUNTY: WASHINGTON
STATE: D.C.
COUNTY: USA
                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYBE: Floppy disk
COMPUTER: IS POPPY disk
COMPUTER: BM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/547,142
FILING DATE: 24-OCT-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
99.8%; Score 471; DB 10; I
Best Local Similarity 100.0%; Pred. No. 1.5e-113;
Matches 471; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRICE APPLICATION DATA:

APPLICATION NUMBER: US 07/662,222
FILING DATE: 12.FEB.1991
PRICE APPLICATION DATA:

PRICE APPLICATION DATA:

APPLICATION NUMBER: US 07/574,994
FILING DATE: 29-AUG-1990
PRICE APPLICATION DATA:

APPLICATION NUMBER: UK 8919607.5
FILING DATE: 30-AUG-1989
ATTORNEY/AGENT INFORMATION:

NAME: NEWLAND, BART
REPERENCE/POCKET NUMBER: 1808-190A
TELEPHONE: 202-783-6040
                                                                                                                                                                                                                                                                                                                                                                                                                              PULDA APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 08/154,712
FILING DATE: 19-NOV-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/841,961
FILING DATE: 26-FEB-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 4: SEQUENCE CHARACTERISTICS: LENGTH: 11288 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ANTI-SENSE: NO
FRAGMENT TYPE: N-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            202-783-6031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS: Bingle
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-547-142-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10354 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGCCCGGGGACCCTGCTGGG 10413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10294 Addacaccacarcaccrrrrrradececeadadecacriciarcacrreciaria 10353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGGACCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCCAAGGACAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCAGAAATGAGAGGGAAGAGGACAGAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10594 GGCAGAAATGAGAGGGGAGGGACAGAGACACCTGAATAAAGACCACACCCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10714 GCAGACCAGACACTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 10764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 11288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 99.8%; Score 471; DB 9; Length 11 Best Local Similarity 100.0%; Pred. No. 1.5e-113; Matches 471; Conservative 0; Mismatches 0; Indels
         APPLICATION NUMBER: US 07/841,961
FILING DATE: 26-FEB-1992
PRIOR APPLICATION NUMBER: US 07/662,222
FILING DATE: 22-FEB-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/574,994
FILING DATE: 29-AUG-1990
PRIOR APPLICATION NUMBER: US 07/574,994
FILING DATE: 39-AUG-1999
PRIOR APPLICATION NUMBER: UK 8919607.5
FILING DATE: 30-AUG-1999
ATOCNNEY/AGENT INFORMATION:
NAME: NEWLAND, BART
REFERENCE/DOCKET NUMBER: 1808-188A
TELEPRONE: 202-783-6040
TELEFAX: 202-783-6040
TELEFAX: 202-783-6040
TELEFAX: 202-783-6040
TELEFAX: 202-783-6040
TELEFAX: 202-783-6040
TELEFAX: 212-783-6040
TELEFAX: 212-783-6031
TYPE: NUCLEIC ACID
TYPE: NUCLEIC ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
US-08-547-142-4
S-08-547-142-4
Sequence 4, Application US/08547142
GENERAL INFORMATION:
APPLICANT: HUBER, BRIAN
APPLICANT: RICHARDS, CYNTHIA A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ANTI-SENSE: NO FRAGMENT TYPE: N-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-474-420-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
```

ઠે g ઠે 셤 ሯ 요 ઠે g ò 셤 ò g ઠે g ò 10474 CAGAĞGTCAĞCACTĞGGGAAGACAĞGTTGTCCTCCCAĞGGGATGGĞGGTCCATCCACCTT 10533

181

ò 요 ò

Gaps

ö

241 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGAGGGGACAAAAGA 300

```
APPLICANT: Lamparski, Henry
APPLICANT: Lamparski, Henry
Schuur, Eric
Henderson, Daniel
TITLE OF INVENTION: ADENOVIRUS VECTORS SPECIFIC FOR CELLS
EXPRESSING CARCINOEMBRYONIC ANTIGENS AND METHODS OF USE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14302 GCCGAAAAGATTTGTCTGAGGAACTGAAATAGAAGGGAAAAAAGAGAGGGGGACAAAAGA 14361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14062 AGCCACCCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14182 Tricrcretcacaaagaaaaraarccccrecrercacacacaagacacag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGCATGGGGAGCCCGGGACCCTGGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14122 GGCATCATCCCACCTTCCCAGAGCCCTGGAGGATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 AGCCACCACCAGGCGTTTTTTTTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                   10764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 15056;
                                                                 10714 GCAGACCAGACAGTCACAGCCAGCCTTGACAAAACGTTCCTGGAACTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTY: USA

ZIE: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC compatible
APPLICATION DATA:
APPLICATION DATA:
APPLICATION: COMPATIBLE
CLASSIFICATION: COMPATION:
NAME: POLIZZI, CATHERINE M.
REGISTRATION NUMBER: 40,130
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFAK: (415) 413-5600
TELEFAK: (415) 413-5600
TELEFAK: (415) 413-5600
TELEFAK: (415) 413-5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99.8%; Score 471; DB 15; I 100.0%; Pred. No. 1.6e-113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Preq. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear sequence DESCRIPTION: SEQ ID NO: 25: US-09-033-555A-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 25
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET 755 PAGE MILL ROAD
CITY: PALO ALTO
STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX: 706141 MRSNFOERS SFO
INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                       RESULT 15
US-09-033-555A-25
; Sequence 25, Application US/09033555A
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 15056 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                      THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 100. Matches 471; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                   ò
                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                            10653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10354 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAAGCCCGGGACCCTGCTGGG 10413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10654 cGrigariciricada a criccriscic crassa a carcado de contra de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10294 AGCCACCACAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCATCACCTTCCTGTTG 10353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10534 GCCGAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGGAACAAAAGA 10593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCCGGGACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 TTTCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAAGACACAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                      10594 GGCAGAAATGAGAGGGAGGACAGAGGACACCTGAATAAAGACCACACCCATGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCAGAAATGAGGGGGGGGGGCCAGGGGCCCCTGAATAAAGACCACACCATGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                  10714 GCAGACCAGACGGTCACAGCCTTGACAAAACGTTCCTGGAACTCAAGC 10764
                                                                                                                                                                                                                                                                                                                    421 GCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 34; Length 11288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Vile, Richard G.
APPLICANT: Harrington, Kevin
APPLICANT: Bateman, Andrew
APPLICANT: Murphy, Steven
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TISSUE;
TITLE OF INVENTION: SPECIFIC GENE REGULATION THERAPY
FILE REFERENCE: 07039-289001
CURRENT FILING DATE: 2001-03-30
PRIOR FILING DATE: 2001-03-30
PRIOR PRIOR FILING DATE: 2000-03-31
NUMBER OF SEQ ID NOS: 18 didows Version 4.0
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 99.8%; Score 471; DB 34; 1
Best Local Similarity 100.0%; Pred. No. 1.5e-113;
Matches 471; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; NAME/KEY: CDS
; LOCATION: (10804)...(10935)
US-09-822-634-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 11288
                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 14
US-09-822-634-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                     361
                                10534
                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                유
                                                                                      ઠે
                                                                                                                                      ď
                                                                                                                                                                                               ò
                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                    ሯ
                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
```

ö

14181

Search completed: December 11, 2004, 09:53:13 Job time: 3799 secs

```
US-10-737-082-14; Sequence 14, Application US/10737082; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 55.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 80.1 Matches 383; Conservative
15534
108432
937482
937482
600
600
600
600
34406
                                                                                                                 201
201
201
201
201
246385
201
148764
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: Homo sapiens
LENGTH: 15862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-737-082-14
670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
υ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 294, App
Sequence 210, App
Sequence 210, App
Sequence 210, App
Sequence 310, App
Sequence 292, App
Sequence 299, App
Sequence 311, App
Sequence 311, App
Sequence 311, App
Sequence 95976, A
Sequence 95916, A
Sequence 95916, A
Sequence 95916, A
Sequence 9591, A
                                                                 December 11, 2004, 06:59:48; Search time 158 Seconds (without alignments) 4578.586 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                  472

1 AGCCACCACCAGTGAGCCT.....ACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
Sequence
                                                                                                                                                                                                                                                                                    Pending Patente_NA_New:*

1: /cgn2_6/ptodata/1/pna/USG_NEW_COMB.seq:*

2: /cgn2_6/ptodata/1/pna/USG0_NEW_COMB.seq:*

3: /cgn2_6/ptodata/1/pna/USG0_NEW_COMB.seq:*

4: /cgn2_6/ptodata/1/pna/USO9_NEW_COMB.seq:*

5: /cgn2_6/ptodata/1/pna/USIO_NEW_COMB.seq:*

6: /cgn2_6/ptodata/1/pna/USIO_NEW_COMB.seq:*

7: /cgn2_6/ptodata/1/pna/USIO_NEW_COMB.seq:*

8: /cgn2_6/ptodata/1/pna/USIO_NEW_COMB.seq:*
         GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-737-082-14
US-10-737-082-68
US-10-737-082-68
US-60-625-561-294
US-60-625-562-301
US-60-625-562-303
US-60-625-561-292
US-60-625-561-292
US-60-625-561-292
US-60-625-561-292
US-60-625-561-292
US-10-912-745A-361
US-10-948-737-3813
US-10-948-737-3813
US-10-948-737-3813
US-10-990-328-95796
US-10-990-328-95796
US-10-990-328-95790
US-10-990-328-9573914
US-10-20-366A-6728
                                                                                                                                                                                              hits satisfying chosen parameters:
                                                                                                                                                                          1633475 segs, 766331085 residues
                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                                                                               Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                               - nucleic search, using sw model
                                                                                                                                              IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                   Minimum DB seq length: 0 Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                         US-10-045-116-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   206746
1285
9535
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2799
2974
2974
2976
2976
2976
2976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  366
472
54574
299
312644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13277
69757
98532
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing:
                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         555.4
433.2
39.4
37.6
37.4
37.4
37.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36.6
36.2
36.2
                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score
                                                                                                                 Perfect score:
                                                                                                                                                                                                Total number
                                               nucleic
                                                                                                                             Sequence:
                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                                                                        Database
                                                                  Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ĕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ပပပ
```

```
Sequence 2535, Ap
Sequence 95481, Ap
Sequence 95731, A
Sequence 93655, A
Sequence 16041, A
Sequence 16041, A
Sequence 16042, A
Sequence 16043, A
Sequence 93296, A
Sequence 354046,
Sequence 354046,
Sequence 354046,
Sequence 354046,
Sequence 354049,
                                                                                                                                                                                                                                                                                                              4 4 A
                                                                                                                                                                                                                                                                                     Sequence
Sequence
Sequence
Sequence
US-10-956-157-2535

US-10-990-328-95731

US-10-990-328-95731

US-10-990-328-9565

PCT-USO4-35274-16041

PCT-USO4-35274-16042

PCT-USO4-35274-16043

PCT-USO4-35274-16043

PCT-USO4-35274-16043

PCT-USO4-35274-16043

PCT-USO4-35274-16043

PCT-USO4-35274-16043

PCT-USO4-35274-16043

US-10-990-328-9354046

US-10-990-328-354049

US-10-990-328-354049

US-10-990-328-35576

US-10-990-328-95576

US-10-990-328-95576
```

ALIGNMENTS

APPLICANT: Bayer Healthcare LLC
APPLICANT: Bayer Healthcare LLC
APPLICANT: Bayer Healthcare LLC
APPLICANT: Bayer Healthcare LLC
APPLICANT: Burgess, Chris
APPLICANT: Barnon, Alison
APPLICANT: Harvey, Jeanne
APPLICANT: Lechner, John F.
APPLICANT: Lechner, John F.
APPLICANT: Harvey, Jeanne
APPLICANT: Lechner, John F.
APPLICANT: Lichner, John F.
APPLICANT: Lichner, John F.
APPLICANT: Lichner, John F.
APPLICANT: Lichner, John F.
CURRENT APPLICATION NUMBER: US/10/737,082
CURRENT FILING DATE: 2003-12-16
PRIOR FILING DATE: 2003-12-16
NUMBER OF SEQ ID NOS: 300
SOFTWARE: PatentIn version 3.2
SEQ ID NO 14 610 699 294 61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG TITCTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGACCCAAGGACAGAACACAG TITCICITATORC-AAGGGAAATAATCCCCCTGGTGTGACAGACCCAAGGCCAGAACACAG GC--CGAAAAGATTTGTCTGAGGAACTGAAATAG----AAGGGAAAAAAGAGAGGAC 1 AGCCACCACCAGCCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCTGTTG Gaps 32; Score 263.2; DB 6; Length 15862; Pred. No. 1.3e-63; 0; Mismatches 63; Indels 32;

```
958 GGAGGCTCAGCACAGAGAGTGGAA-AACAGCAGAGGTGACAGAGCAGCCGTGCT---CGA 1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CTCAGGGCAGAGGAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAAAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCAGGGCAGAGGAAGGAAAGGACAGACAGACAGACAGTCACAGCAGCCTTGACAAAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 2799;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 2799;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              397 CTCAGGGCAGAGGAGGACAGCAGACCAGACAGTCACAGCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                 Sequence 360, Application US/10912745A
GENERAL INFORMATION:
APPLICANT: Appler Corporation
TITLE OF INVENTION: Pancreatic Cancer Targets and Uses
TITLE OF INVENTION: Thereof
TITLE OF INVENTION: Thereof
TITLE OF INVENTION: Thereof
CURRENT APPLICATION NUMBER: US/10/912,745A
CURRENT APPLICATION NUMBER: US/10/912,745A
CURRENT FILING DATE: 2004-08-06
NUMBER OF SEQ ID NOS: 873
SOFTWARE FRASESEQ for Windows Version 4.0
LENGTH: 2799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-60-625-561-294
; Sequence 294, Application US/60625561
; GENERAL INFORMATION:
; APPLICANT: MCGAFREN:
; APPLICANT: DOMON, Bruno
; TITLE OF INVENTION: PANCREATIC CANCER TARGETS AND USES
; TITLE OF INVENTION: THEREOF
; FILE REFERENCE: CLO01557
; CURRENT PPLICATION NUMBER: US/60/625,561
; CURRENT FILING DATE: 2004-11-08
; NUMBER OF SEQ ID NOS: 586
; SOFTWARE: FRAESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15.9%; Score 75; DB 8; Lei
100.0%; Pred. No. 4.5e-11;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15.9%; Score 75; DB 6; De 100.0%; Pred. No. 4.5e-11; iive 0; Mismatches 0;
                                                                                          1014 AGCGTTCCTGGAGCCCAAGC 1033
                                               452 AACGTTCCTGGAACTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         457 TCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                457 TCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCTGGAACTCAAGC 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.C
Matches 75; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.
Matches 75; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
CORGANISM: Homo sapiens
US-10-912-745A-360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; TYPE: DNA
; ORGANISM: Homo sapiens
US-60-625-561-294
                                                                                                                                                                                     US-10-912-745A-360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 5
US-60-625-562-301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 2799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
    음
                                             ò
                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Beard, Chris
APPLICANT: Burgess, Chris
APPLICANT: Burgess, Chris
APPLICANT: Gannon, Allison
APPLICANT: Gannon, Allison
APPLICANT: Lechner, John F.
APPLICANT: Lechner, John F.
APPLICANT: Li, Zheng
TITLE OF INVENTION: Identification and Verification of Methylation Marker Sequences
FILE REFERENCE: 1657/2032
CURRENT APPLICATION NUMBER: US/10/737,082
CURRENT FILING DATE: 2003-12-16
PRIOR APPLICATION NUMBER: US 10/737,082
PRIOR PLING DATE: 2003-12-16
PRIOR FILING DATE: 2003-12-16
NUMBER OF SEQ ID NOS: 300
SOFTWARE: Patentin version 3.2
SEQ ID NO 68
LENGIN 122140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCATCATCCCACCTTCCCAGAGCCCTGGAGGCATGGGGAGACCCGGGACCCTGCTGGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   602 GGTGTCTTCCTACCTTCCCAGCACCACTGAAGAGCATGGGGAGACCTGGCAGCTCACTGTG 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 662 riecaaagaaaaraarakeeseerriregarareceaegerrererereereereksee 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             722 ACCCATAGCCAGGACACAATAGAGGTCCAGGGGAGAGGGGGATCCTCCTCCTCCTGAT 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               782 GGGGACAGAGGTCTCATCAGCCTTGATTCTCAAAGTGTGGGTCTGGGAAACCAAAATGTAG 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             275 AGGGAAAAAAGAG---GAGGGACAAAAGAGCAGAAATGAGAGGGGGGGGGACAGAGGC 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     332 ACCTGAATAAAGACCACCCATGACCCACGTGATGCTGAGAAGTACTCCTGCCCTAGGA 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                902 ccregacaaa----cccccccccacacacacardarcagacaaagcrcreggcccccagga 957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              392 AGAGACTCAGGGGCAGAAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAA 451
                       295 AAAAGAGGCAGAAATGAGAGGGGAGGGGACAGAGGACACCTGAATAAAGACCACACCCAT 354
                                                                                                              355 GACCCACGTGATGCTGAGAAGTACTCCTGCCCTAGGAAGAGACTCAGGGGCAGAGGAAA414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    217 AGGGGATGGGGGTCCATCCACCTTG--CCGAAAAGATTTGTCTGAGGAACTGAAAATAGA 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          842 ACAGAAAGGAAAGAAAGTAAGGACAAAGGTAGGAATGAGAGGAGGAGAACAGAGCTT 901
                                                                                                                                                                                                         415 AGGACAGCAGACCAGACCAGTCACAGCAGCCTTGACAA-AACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                    910 AGGACAGCAGAGCTGACAGTCACAGCAGCCTGACAAGAGAGTTCCTGGAGCCCAAGC 967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 AGCCACCACCAGTGAGCCTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         162 ACCCAAGGACAGAACACAGCAGAGGTCAGCACTGGGGAAGACAGGTTGTCCTCCC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 21.9%; Score 103.2; DB 6; Length 22140; Best Local Similarity 61.0%; Pred. No. 1.1e-18; Matches 305; Conservative 0; Mismatches 158: Indele 17.
                                                                                                                                                                                                                                                                                                                                                                  Sequence 68, Application US/10737082 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Bayer Healthcare LLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                       RESULT 2
US-10-737-082-68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-737-082-68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                              ð
                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                ద
```

Gaps

```
397 CTCAGGGCAGGAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAAAACGT 456
                                                                                                                                                                                                     397 CTCAGGGCAGAGGGAGGAAGGACAGCAGACCAGTCACAGAGCAGCCTTGACAAAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CTCAGGGCAGAGGAAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAAAACGT
                                                                                                                                                                                                                                                 1 CTCAGGGCAGAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCGTTGACAAAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       397 CTCAGGGCAGAGGAAGGACAGCAGACAGACAGACAGTCACAGCAGCCTTGACAAAACGT
                                                                                                                                                         ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ő
                                                                                                             Length 2974;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 2974;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 2976;
                                                                                                          Query Match 15.9%; Score 75; DB 8; Length 297 Best Local Similarity 100.0%; Pred. No. 4.5e-11; Matches 75; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: MCCAFFREY, Ian
APPLICANT: DOMON, BELUO
TITLE OF INVENTION: COLO DISEASE TARGETS AND USES THEREOF
FILE REFERENCE: CLOOISSS
CURRENT APPLICATION NUMBER: US/60/625, 562
CURRENT FILING DATE: 2004-11-08
NUMBER OF SEQ ID NOS: 535
SOFTWARE: PSELSEQ for Windows Version 4.0
SEQ ID NO 300
LENGTH: 2974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 361, Application US/10912745A
GENERAL INFORMATION:
GAPLICANT: Applicat Corporation
TITLE OF INVENTION: Pancreatic Cancer Targets and Uses
TITLE OF INVENTION: Thereof
FILE REFERENCE: CLO01538
CURRENT APPLICATION NUMBER: US/10/912,745A
CURRENT APPLICATION NUMBER: US/10/912,745A
NUMBER OF SEQ ID NOS: 873
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15.9%; Score 75; DB 8; L 100.0%; Pred. No. 4.5e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 75; DB 6; L
Pred. No. 4.5e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15.9%; Scc...
100.0%; Pred. No. ...
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Prec. ...
                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 8
US-60-625-62-300
i Sequence 300, Application US/60625562
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                         457 TCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             457 TCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                     61 recredancreans 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 rccregaacrcaage 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match'
Best Local Similarity 100.0
Matches 75; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 100.
Matches 75; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-912-745A-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; ORGANISM: Homo sapiens
US-60-625-562-300
                       ; TYPE: DNA
; ORGANISM: Homo sapiens
US-60-625-561-293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-912-745A-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 361
LENGTH: 2976
  LENGTH: 2974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               397 CTCAGGGCAGAGGAGGACGACAGCAGACAGCCAGACAGTCACAGCCTTGACAAAACGT 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CTCAGGGCAGAGGAGGACAGCAGCAGACCAGTCACAGCAGCCTTGACAAAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CTCAGGGCAGGAGGAGGAGGACAGCAGCCAGACCAGTCACAGCGCCTTGACAAAACGT
                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .<del>.</del>
                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 15.9%; Score 75; DB 6; Length 2974; Best Local Similarity 100.0%; Pred. No. 4.5e-11; Matches 75; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                            Length 2799;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  397 CTCAGGGCAGAGGAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCT
                                     APPLICANT: MCCAPPREY, Ian
APPLICANT: MCCAPPREY, Ian
APPLICANT: DOMON, Bruno
TITLE OF INVENTION: COLON DISEASE TARGETS AND USES THEREOF
FILE REPERBINGE: CLOOLISS
CURRENT APPLICATION NUMBER: US/60/625,562
CURRENT APPLICATION NUMBER: 2004-11-08
NUMBER OF SEQ ID NOS: 535
SOFTWARE: FREESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 293, Application US/60625561
GENERAL INFORMATION:
APPLICANT: MCCAFFER, I an
APPLICANT: MCCAFFER, I an
APPLICANT: POWON, Bruno
TITLE OF INVENTION: THEREOF
FILE REFERENCE: CLO01557;
CURRENT APPLICATION NUMBER: US/60/625,561
CURRENT FILING DATE: 2004-11-08
NUMBER OF SEQ ID NOS: 586
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 293
                                                                                                                                                                                                                                                                                                                                       Score 75; DB 8; Ler
; Pred. No. 4.5e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 240, Application US/10482029; GENERAL INFORMATION:
APPLICANT: ODIN medical A/S
TITLE OF INVENTION: Oncology drug innovation; FILE REFERENCE: P 573 PC00
CURRENT APPLICATION NUMBER: US/10/482,029; CURRENT PILING DATE: 2003-12-29; NUMBER OF SEQ ID NOS: 437
SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                        Query Match 15.9%; Score 75; DB Best Local Similarity 100.0%; Pred. No. 4.5 Matches 75; Conservative 0; Mismatches
Sequence 301, Application US/60625562 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        457 TCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        457 TCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCTGGAACTCAAGC 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCTGGAACTCAAGC 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , SEQ ID NO 240
; LENGTH: 2974
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-482-029-240
                                                                                                                                                                                                                                                                                      ; ORGANISM: Homo sapiens
US-60-625-562-301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-482-029-240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-60-625-561-293
                                                                                                                                                                                                                     SEQ ID NO 301
LENGTH: 2799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
```

Gaps

```
Sequence 311, Application US/10961527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-961-527-311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          397 CTCAGGGCAGAGGAAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAAAACGT 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         397 CTCAGGGCAGAGGGAAGGACAGCAGACCAGACAGTCACAGCAGCAGCCTTGACAAAACGT 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CTCAGGGCAGAGGGAGGAAGGACAGCAGACAGACAGTCACAGCAGCCTTGACAAAACGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CTCAGGGCAGAGGAGGAGGACAGCAGCAGCAGCAGCCTTGACAAAACGT 60
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:

GENERAL INFORMATION:

GENERAL INFORMATION:

GENERAL INFORMATION:

GENERAL INFORMATION:

GENERAL INFORMATION:

TITLE OF INVENTION: COLON DISEASE TARGETS AND USES THEREOF

FILE REFERENCE: CL001555

CURRENT FILING DATE: 2004-11-08

NUMBER OF SEQ ID NOS: 535

SOFTWARE: FastSEQ for Windows Version 4.0

LENGTH: 2976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
15.9%; Score 75; DB 8; Length 2976;
Best Local Similarity 100.0%; Pred. No. 4.5e-11;
Matches 75; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
15.9%; Score 75; DB 8; Length 2976;
Best Local Similarity 100.0%; Pred. No. 4.5e-11;
Matches 75; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                       Sequence 292, Application US/60625561
GENERAL INFORMATION:
APPLICANT: MCCAFFERY, Ian
APPLICANT: DOMON, Bruno
ITILE OF INVENTION: PANCREATIC CANCER TARGETS AND USES
ITILE OF INVENTION: THEREOF
FILE REFERENCE: CLOO1557
CURRENT APPLICATION NUMBER: US/60/625,561
CURRENT FILING DATE: 2004-11-08
NUMBER OF SEQ ID NOS: 586
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 292
LENTH: 2976
                                                                      457 TCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                457 TCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   457 TCCTGGAACTCAAGC 471
                                                                                             61 TCCTGGAACTCAAGC 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 TCCTGGAACTCAAGC 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 TCCTGGAACTCAAGC 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; ORGANISM: Homo sapiens
US-60-625-561-292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  , ORGANISM: Homo sapiens
US-60-625-562-299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
US-10-961-527-311/c
                                                                                                                                                                                  RESULT 10
US-60-625-561-292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 11
US-60-625-562-299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

```
293 ACGACAGCAGACCAGACAGTCACAGCGCTTGACAAAACGTTCCTGGAACTCAAGAGC 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             415 AGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
GENERAL INFORMATION:
APPLICANT: King, Gordon E.
APPLICANT: Modeleine Joy
APPLICANT: Secriet, Heather
ITILE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
ITILE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
ITILE OF INVENTION: COMPOSITIONS OF COLON CANCER
FILE REFERENCE: 210121.547C4
CURRENT APPLICATION NUMBER: US 09/920,300
PRIOR APPLICATION NUMBER: US 09/920,300
PRIOR PELING DATE: 2001-07-31
PRIOR APPLICATION NUMBER: US 60/209,763
PRIOR FILING DATE: 2001-03-28
PRIOR PELING DATE: 2000-08-03
PRIOR APPLICATION NUMBER: US 60/223,283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: KAUFNAN, JOERG
APPLICANT: KAUFNAN, JOERG
APPLICANT: KENNEDY, GIULLA C.
APPLICANT: KENNEDY, GIULLA C.
APPLICANT: KENNEDY, GIULLA C.
APPLICANT: MOLER, EDWARD J.
APPLICANT: REINHARD, CRISSTOPH
APPLICANT: REINHARD, CRISSTOPH
APPLICANT: SUDDUTH-KLINGER, JULIE
TITLE OF INVENTION: IN CANCEROUS CELLS III
FILE OF INVENTION: IN CANCEROUS CELLS III
FILE REPERENCE: 2300-21987
CURRENT APPLICATION NUMBER: US/10/948,737
CURRENT PILLING DATE: 2004-09-22
PRIOR PLICATION NUMBER: 0/616,900
PRIOR PLICATION NUMBER: 0/9872,850
PRIOR PLICATION NUMBER: 0/0/20,91
PRIOR FILING DATE: 2001-06-01
PRIOR FILING DATE: 2001-06-01
PRIOR FILING DATE: 2001-02-21
PRIOR PLILING DATE: 2001-12-04
PRIOR PLILING DATE: 2001-12-04
PRIOR PLILING DATE: 2001-12-04
PRIOR PLILING DATE: 2001-12-04
PRIOR PLILING DATE: 2003-01-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 294;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 11.7%; Score 55.4; DB 6; Best Local Similarity 98.2%; Pred. No. 6.5e-06; Matches 56; Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3964, Application US/10948737
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: CHAN, VIVIEN W.
APPLICANT: BECOBEDO, JAIME
APPLICANT: BROKIA, PABLO DOMINGUEZ
APPLICANT: HANSEN, RHONDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
```

4. 1.4.9.1.4

ċ

```
completed: December 11, 2004, 09:55:58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Search completed: D
Job time : 160 secs
                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              405 AGAGGGAGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAAAAC-GTTCCTGGA 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 AGAGGTAGGAAGGACACAGCAGACTGACAGCAGCCACCCTGACAAGAGAGTTCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Gaps
                                                                                      See File Wrapper or PALM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 13996
SOFTWARE: PastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: MOLEN, EDWARD J.
APPLICANT: RANDAZZO, FILIPPO
APPLICANT: RANDAZZO, FILIPPO
APPLICANT: REINHARD, CHRISTOPO
APPLICANT: SERIHARD, CHRISTOPO
APPLICANT: SUDDUTH-KLINGER, JULIE
TITLE OF INVENTION: GENE PRODUCTS DIFFERENTIALLY EXPRESSED
TITLE OF INVENTION: GENE PRODUCTS DIFFERENTIALLY EXPRESSED
FILE REFERENCE: 2300-21987
CURRENT APPLICATION NUMBER: US/10/948,737
CURRENT APPLICATION NUMBER: 10/616,900
PRIOR APPLICATION NUMBER: 09/872,850
PRIOR PILING DATE: 2001-06-01
PRIOR PILING DATE: 2000-06-02
PRIOR FILING DATE: 2000-06-02
PRIOR FILING DATE: 2000-02-21
PRIOR PILING DATE: 2000-06-1
PRIOR PILING DATE: 2000-06-1
PRIOR PILING DATE: 2000-06-1
PRIOR PILING DATE: 2000-06-1
PRIOR PILING DATE: 2003-01-08
PRIOR PILING DATE: 2002-01-08
                                                                                                                                                                                                                                                                                                                                                                    Query Match 9.2%; Score 43.2; DB 6; Length 366; Best Local Similarity 86.8%; Pred. No. 0.018; Matches 59; Conservative 0; Mismatches 8; Indels
                         PRIOR APPLICATION NUMBER: 10/081,124
PRIOR FILING DATE: 2002-02-21
Remaining Prior Application data removed - 1
NUMBER OF SEQ ID NOS: 13996
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 3964
LENGTH: 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: CHAN, VIVIEN W.
APPLICANT: ESCOBEDO, JAIME
APPLICANT: GARCIA, PABLO DOMINGUEZ
APPLICANT: HANSEN, RHONDA
APPLICANT: KAUFWANN, JOERG
APPLICANT: KENNEDY, GIULIA C.
APPLICANT: LAMSON, GEORGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3813, Application US/10948737
GENERAL INFORMATION:
FILING DATE: 2002-01-08
                                                                                                                                                                                                                                          ; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-948-737-3964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
COGANISM: Homo sapiens
US-10-948-737-3813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        464 ACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62 GCCCAAGC 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 3813
LENGTH: 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
```

...

```
Sequence 95976, Application US/10990328
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
TITLE OF INVENTION: POLYMORPHISMS IN NUCLEIC ACID MOLECULES
TITLE OF INVENTION: ENCODING HUMAN ENZYME PROTEINS, METHODS OF DETECTION AND
TITLE OF INVENTION: USES THEREOF
TITLE OF INVENTION: USES THEREOF
CURRENT APPLICATION NUMBER: US/10/990,328
CURRENT APPLICATION NUMBER: US/10/990,328
CURRENT FILING DATE: 2004-11.17
NUMBER OF SEQ ID NOS: 558824
SOFTWARE FRACES for Windows Version 4.0
SEQ ID NO 95976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8846 CTGTGACCCACAGGAAGATGGAAACCGTTGTAAGCCATGTCTAAAAAGCA-AAAACAGCTC 8788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          124 CTCTGTCACAAAGGAAAATAATCCCCCTGGTGTGACAGGACCCCAAGGAACACACAGCAG 183
                                                                                                                                                                    9
                                                                                                                                                         1 AGAGGTAGGAAGGACAGCAGAGCTGACAGTCACAGCAGCAGCCCTGACAAGAGAGTTCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            405 AGAGGGAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAAAAC-GTTCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 244 GAAAAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAAGAGGGGGGACAAAAGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 54574;
                Length 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 8.3%; Score 39.4; DB 6; Length 5: Best Local Similarity 51.6%; Pred. No. 1.2; Matches 114; Conservative 0; Mismatches 106; Indels
                                                                 Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8667 AGGAGGAAGGGAAAGGGAAGGAGAAAGGATGAAAGA 8627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         304 AGAAATGAGAGGGAGGGACAGAGACACCTGAATAAAGA 344
                                                                    ..
60
                Score 43.2; DB 6;
Pred. No. 0.02;
9.2%; Scor.
86.8%; Pred. No. u.v.,
... 0; Mismatches
                                   Best Local Similarity 86.8
Matches 59; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: Homo sapiens
US-10-990-328-95976
                                                                                                                                                                                                                          464 ACTCAAGC 471
                                                                                                                                                                                                                                                                         61 GCCCAAGC 68
                                                                                                                                                                                                                                                                                                                                                        RESULT 15
US-10-990-328-95976/c
                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
```

THIS PAGE BLANK (USPTO)

```
AW449279 UI-H-BI3-
AG307251 Mus muscu
AZ553789 FKCI-23-1
AZ377222 1M0131923
CD709204 EST25731
CD709204 EST25731
CD695182 EST4702 h
AL602851 BKT26686P
AU140869 AU140869
CD686649 EST3170 h
BM829043 K-EST0012
BM752492 K-EST0012
BM35430 K-EST0012
BM35660 K-EST0112
BM35660 K-EST0112
BM35660 K-EST0112
BM35660 K-EST0112
BM356909 DKFZD781B
BM356909 DKFZD781B
BM356104 K-EST0112
BM356104 K-EST0112
BM356104 K-EST0112
BM35660 K-EST0112
BM35660 K-EST0112
BM356104 K-EST0112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus muscu
RPCI-23-1
1M0131P23
EST25731
EST24928
EST1702 h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 K-EST0112
K-EST0029
K-EST0111
K-EST0101
K-EST0112
K-EST0112
K-EST0112
K-EST0128
HS_2278_A
                                                                             December 11, 2004, 06:27:49; Search time 2957 Seconds (without alignments) 5816.555 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                            1 AGCCACCACCAGTGAGCCT......ACGTTCCTGGAACTCAAGCA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Description
                                                                                                                                                                                                                                                               65645750
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                   32822875 segs, 18219865908 residues
                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUMMARIES
                                                                                                                                                                                                                                                                                                                              Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                     OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AW449279
AG307251
AG377239
AZ377239
CD709204
CD708501
CD691155
AL602651
AL602651
AM140869
CD686649
BM82943
BM82943
BM82943
BM82643
BM836104
                                                                                                                                                                                          IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                       Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           *
Query
Match Length DB
                                                                                                                                  US-10-045-116-1
472
                                                                                                                                                                                                                                                                                                                                                                                                 EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6099.8
6099.8
6099.8
6099.8
6099.8
6099.8
6099.8
6099.8
6099.8
6099.8
6099.8
                                                                                                                                   Title:
Perfect score:
                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score
                                                                                                                                                                                                                                                                                                                                                                                      Database :
                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22220987654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          O
```

Č.	STINGWINDT IN					
CD618515 56019449J	CD618515	9	677	11.3	53.4	45
6	CD691079	9	534	11.5	54.2	44
a	AA132182	-	380	11.7	52	43
BI759915 603044336	BI759915	4	887	11.9	56	42
9	CD618536	9	180	12.1	57	41
CD691034 EST7557 h	CD691034	9	557	12.1	57.2	40
BX479959 DKFZp686M	BX479959	'n	574	12.2	57.4	39
	CD618565	φ	486	12.2	57.4	38
	CD696697	9	512	12.2	57.6	37
CD618555 56043858J	CD618555	9	823	12.4	58.4	36
	CD618556	9	726	12.4	58.4	35
	CD618545	9	548	12.4	58.4	34
	CD618510	9	670	12.5	59	33
CD618516 56019457H	CD618516	9	579	12.5	59	32
CD618563 56076536J	CD618563	9	489	12.5	50	31
AA132598 zo17c08.r	AA132598	-1	390	12.5	29	30
	CD618552	9	841	12.7	9	29
CD618546 56043758H	CD618546	9	803	12.7	9	28
CD618558 56044026H	CD618558	ø	729	12.7	9	27
	CD618550	9	716	12.7	9	56
	AL602396	ч	651	12.9	61	25
,						

ALIGNMENTS

RESULT 1 AW449279	
LOCUS	AW449279 328 bp mRNA linear EST 17-FEB-2000
DEFINITION	<pre>UI-H-B13-akh-e-09-0-UI.81 NCI_CGAP_Subs Homo sapiens cDNA clone IMAGE:2734193 3', mRNA sequence.</pre>
ACCESSION	AW449279
VERSION	AW449279.1 GI:6990055
SOURCE	Est. Homo sapiens (human)
ORGANISM	
	Chordata;
	Mammalla; Eutherla; Primates; Catarrhin; Hominidae; Homo.
REFERENCE	1 (bases 1 to 328) NCT-CGAD http://www.nchi.nlm.nih.gov/ncicgap
TITLE	National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
	Tumor Gene Index
COURNAL	Unpublished (1997)
COMMENT	contact: Kobert Strausberg, Pn.D. Rmail. caanba-ramail nih cov
	India: cycles remutations and object that was present in the
	oligonucleotide that was used to prime the synthesis of first
	strand cDNA and therefore this may represent a bonafide poly A
	tail. cDNA Library Preparation: M.B. Soares Lab Clone distribution:
	NCI-CGAP clone distribution information can be found through the
	I.M.A.G.E. Consortium/LLNL at:
	www-bio.llnl.gov/bbrp/image/image.html
	Seq primer: M13 Forward
	POLYA=Yes.
FEATURES	Location/Qualifiers
source	1328
	/organism="Homo sapiens"
	/mol_type="mRNA"
	/db_xref="taxon:9606"
	/clone="IMAGE:2734193"
	/lab_host="DH10B (Life Technologies)"
	/clone_lib="NCI_CGAP_Sub5"
	/note="Vector: pT7T3D-Pac (Pharmacia) with a modified
	polylinker; Site 1: Not 1; Site 2: Eco R1; NCI CGAP Subs
	is a subtracted library derived from NCI_CGAP_Sub4. The
	NCI CGAP Sub5 library had 3 million recombinants. A
	single-Buranded DNA preparation of Nul Coar Sub- was used as a tracer in a subtractive hybridization with a driver
	comprising: the IMAGE pool (NCI CGAP Kid3 pool 1 LLAM
	3334-3337, 3682-3683, 3798-3803 (IMAGE CloneIDs
	1322376-1323911, 1456008-1456775,1500552-1502855);
	NCI CGAP KIDS DOOL I LLAM 3538-3542,3/22-3/25, 3/76-3/78 (TMAGR CloneIDs 1121912-1125811, 1471168-1472901

```
GSS 20-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    143 AATCCCCCTGGTG------TGACAGACCCAAGGACAGAACACAGAGG 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         411 TCAAGGTTTTGTTGGAGAAGAACATAAAGAGAAAATTTGAGGAAGATGCGGGGCAGC 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATGAGAGGGAGGGACAGAGGA----CACCTGAATAAAGACCACACCCATGACCCAC 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1. (bases 1 to 522)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          83 GCCCTGGAGAGCATGGGGAGCCCGGGACCCTGCTGGGGTTTCTCTGTCACAAGGAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      351 reacicecercicarga a renterrereacice recentere reservencias en reacientes en reacie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23 INCHAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTGGGCATCATCCCACCTTCCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    247 AAGATTTGTCTGAGGAACTGAAAATAGAAGGGAAAAAAGAGGGGGGGCAGA
                        The Institute of Physical and Chemical Research (RIKEN) 3-1-1 Koyadai, Tsukuba, 305-0074 Japan phone: 81-298-36-9189, fax: 81-298-36-9199 e-mail: abe@rtc.riken.jp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 701;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RPCI-23-177H11.TJ RPCI-23 Mus musculus genomic clone RPCI-23-177H11, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue type="mixture of kidney and spleen"
/clone_lib="MSMg01 Mouse Male BAC Library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 78.4; DB 9; Length 7
Pred. No. 2.9e-10;
0; Mismatches 161; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Mus musculus molossinus"
/mol_type="genomic DNA"
/sub_species="molossinus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA
faukuba Institude, Bio Resource Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /db_xref="taxon:57486"
/clone="MSMg01-088106.TJ"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            522 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AZ553789.1 GI:11233609
                                                                                                                                                                                                                                                                                                                                                       : pBACe3.6
: EcoRI
: ECORI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 56.4%;
Matches 239; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .701
                                                                                                                                                                                                                                                                        Sequencing : TJ
LIBRARY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              422 CAGA 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGA 593
                                                                                                                                                                                                                                                                                                                                                                          Vector
R.Site 1
R.Site 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AZ553789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AZ553789
                                                                                                                                                                                                                                 PRIMERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 3
AZ553789
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                   1475.1914 (1MAGE CloneIDS 1001 I LLAN 3575.3582, 3861-3854 (1MAGE CloneIDS 144920-1417991,1520904-1522439); NIT CGAP GC4 pool 1 LLAN 3164-3167, 3716-3720, 3733-3735 (1MAGE CloneIDS 1257096-1258631,1469064-1470983, 1475592-1476743); NCI CGAP Pr22 pool 1 LLAN 2457-2459, 2758-2759, 3062-3068 (1MAGE CloneIDS 985608-986759,1101192-1101959, 2007-200615); NCI CGAP Col0 pool 1 LLAN 2644-2653, 1277928-1220615); NCI CGAP Col0 pool 1 LLAN 2644-2653, 1277928-1220615); NCI CGAP Col0 pool 1 LLAN 2644-2653, 1277928-120615); Dius a pool of 3,840 arrayed clones from NCI CGAP Subl (IMAGE CloneIDS 2710556-2710535) and NCI CGAP Subl (IMAGE CloneIDS 2710536-2712455) (10% of the driver population); plus a pool of 11,136 clones from NCI CGAP Sub3 (IMAGE CloneIDS 2712456-2725969) (10% of the driver population); plus a pool of 5,472 clones from NCI CGAP Sub3 (IMAGE CloneIDS 2723522-2728969) (10% of the driver population); Dubtraction was performed as previously described (Bonaldo, Lennon & Soares (1996): Normalization and Subtraction: Two Approaches To Registration and Subtraction and Subtraction and Subtraction and Subtraction: Two Approaches To Registration and Subtraction and Subtracti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The Company of the Co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AG307251 701 bp DNA linear GSS 02-JUN-2004 Mus musculus molossinus DNA, clone:MSMg01-088106.TJ, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               155 TTGCAAAGAAATAATTACCACATTTGGATATGCCAGGGTTCTCTGTGTGCTGCTGACAG 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95 GGTGTCTTCCTACCTTCCCAGCACACTGAAGAGCATGGGGAGACTGGCAGCTCACTGTG 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 TTTCTCTGTCACAAAGAAATAATCCCCCTGG---------TGTGACAG 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35 AGTCATCCCCCAGAGCCCCTTTCCATCCCCCAGAGCCACCTCTGTCACCTTCCTGCTG 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 GGCATCATCCCACCTTCCCAGAGCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 AGCCACCACCAGTGAGCCTTTTTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62; Indels 19; Gaps
1492104-1493255); NCI_CGAP_LuS pool 1 LLAM 3575-3582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       162 ACCCAAGGACAGAACACAGAGAGGTCAGCACTGGGGAAGACAGGTTGTCCTCCC 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hattori,M., Toyoda,A., Noguchi,H., Kojima,T. and Sakaki,Y.
BAC end Sequences of Library MSMg01
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 215 ACCCATAGCCAGGACACAATAGAGGTCAGTGCTGGAGAGGGGGGGATCCTCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 87.8; DB 2;
Pred. No. 6.5e-13;
0; Mismatches 62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAG_TISSUE=colon
TAG_LIB=NCI_CGAP_CO10
TAG_SEQ=AAACG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GI:47880205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus molossinus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus molossinus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 65.5%;
Matches 154; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AG307251.1
GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AG307251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
```

g

ò g

δ 셤 ઠે 셤 ð

230 142

82

Gaps

290

246 410 306

GSS 02-OCT-2000

```
(http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoreais. Vector DNA was prepared from a derivative of pWD42 (gil473214 [gb]hR129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus. 1 (bases 1 to 588)
Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C., Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly, M., Rose, M., Rose, R., Stokes, R., Tingey, A., von Niederhausern, A. and Wright, D., Weiss, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."
                                                                                                                                                                                                                           AZ317232 S88 bp DNA linear GSS 02-OCT-200
1M0131P23F Mouse 10kb plasmid UUGC1M library Mus musculus genomic
clone UUGC1M0131P23 F, genomic survey sequence.
AZ377232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished (2000)
Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah
Rm. 308, Biomedical Polymers Research Bldg., 20 S. 2030 E., SLC,
84112, USA
Tel: 801 585 5606
Fax: 801 585 7177
Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0.00
Plate: 0131 row: P column: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /lab_host="E. Coli strain XL10-Gold, Tl-resistant, F-"
/clone_lib="Mouse 10kb plasmid UUGCIM library"
/note="Vector: PWD42nv; Purified genomic DNA from M.
musculus G57BL/6J (male) was obtained from the Jackson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mouse whole genome scaffolding with paired end reads from 10kb plasmid inserts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 588;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 71; DB 8; Length 588;
Pred. No. 2.9e-08;
0; Mismatches 166; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Laboratory Mouse DNA Resource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Plate: 0131 row: P column: 23 Seg primer: CGTTGTAAAACGACGCCCAGT CLass: plasmid ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="genomic DNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         High quality sequence stop: 588.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       db xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone="UUGC1M0131P23"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                              AZ377232.1 GI:10490932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 55.2%;
Matches 234; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /sex="Male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .588
                     425
                                                                                  509 CAGA 512
                  CAGA
                  422
                                                                                                                                                                                                                                                        LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                       RESULT 4
AZ377232
                                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                           셤
Shao, S., Nierman, W., Feldblyum, T., Malek, J., Shatsman, S., Akinret, B., Levins, M., Mcgann, S., Tsegaye, G., Geer, K., Krol, M., Jong, P. and Fraser, C.M.
Mouse BAC End Sequences from Library RPCI-23
Unpublished (1999)
Unpublished (1990)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /lab host="DH10B"
/clone lib="RPCI-23"
/clone lib="RPCI-23"
/clone lib="RPCI-23"
/note="Corgan: Kidney/Brain; Vector: pBACe3.6; Site_1:
ECORI; Site 2: ECORI; Female C57BL/6J mouse kidney and/or brain genomic DNA was isolated and partially digested with a combination of EcoRI and EcoRI Methylase. Size selected DNA was cloned into the pBACe3.6 vector at the ECORI sites. The ligation products were transformed into DH10B electrocompetent cells (BRL Life Technologies). "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            92 TTCCAAACTTCACTGGCACCTGTGTCACCTTCCTGCTGGGAA--ATCCCACCTTCCCAGA 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             83 GCCCTGGAGGAGCATGGGGAGACCCGGGACCCTGCTGGGTTTCTCTGTCAAAGGAAAAT 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  150 GTACTGAAGACACAGGGCTGTTTGTGATCTCTCATCTGGGTCTATGTGTCTCAGGGACACAT 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      143 AATCCCCCTGGTG------TGACAGACCCAAGGACAGAACACAGAGG 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              330 TCAAGGTTTTGTTGGAGAAGAAGAGAGAAAATGTGAGAAAATTTGGGGCAGC 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   210 aggaaagaragaggrrcccrcrrrgargcrgacagacrcargrccaggagrcagcagara 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           270 rcacceccedargarcarrerrereaccarcearecaractrarcarcregeras
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        307 AATGAGAGGGGAGAGAGAGAA----CACCTGAATAAAGACCACACCATGACCAC 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTGGGCATCATCCCCACCTTCCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 15.9%; Score 75.2; DB 8; Length 522; Best Local Similarity 55.9%; Pred. No. 2e-09; Matches 237; Conservative 0; Mismatches 163; Indels 24; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .522
/organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /db_xref="taxon:10090"
/clone="RPCI-23-177H11"
/sex="Female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /mol_type="genomic DNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23
                                                                                                            TITLE
JOURNAL
COMMENT
              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

5

4

Gaps

24;

```
21 GGGCAGAGGGAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCT 80
                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: yxzeng@gzsums.edu.cn.
Location/Qualifiers
                                                                                                                                                                               CD708401.1 GI:32239031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CD685182
CD685182.1 GI:32200899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sun Yat-sen University
                                                                                                                                                                                                             Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                   Unpublished (2003)
Contact: YiXin Zeng
Cancer Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGGAACTCAAGC 75
                               471
                                                          81 GGAACTCAAGC 91
                             GGAACTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cancer Center
                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zeng, Y.-X.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   459
                               461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 7
CD685182
LOCUS
DEFINITION
                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                  ACCESSION
VERSION
                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                             KEYWORDS
                                                                                                                      CD708401
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
 유
                             à
                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CD709204 594 bp mRNA linear EST 25-JUN-2003
EST25731 human nasopharynx Homo sapiens cDNA, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     460
                                                                                                                                                                                                                                           306
                                                                                                                                                                                                                                                                                                                                                                 421
               336 TCAAGGTCTTGTTGGAGGAGAATCATAAAGAGAAAAATGTGAGAAAAGATGTGATGAGGC 395
                                                                                                                                                                                                                                                                                                                     GCCCTGGAGAGCATGGGGAGACCCGGGACCCTGCTGGGTTTCTCTGTCACAAAGGAAAAT 142
                                                                                                                    143 AATCCCCTGGTG-----TGACAGACCCAAGGACACACACACACAGCAGAGG 186
                                                                                                                                               216 AGGAATGATGGAGGCTCCCTCTTTGATGCTGACAGACTCATATCTGGGAGTCAGCATATG 275
                                                                                                                                                                                                          276 rcháccciricargastrariericreraagicargeccargerrarchaccirerrae
                                                                                                                                                                                                                                                                                                     307 AATGAGAGGGGAGGGACAGAGGACACCTGAATAAAGA-----CCACACCCATGACCCAC 361
                                                                                                                                                                                                                                                                                                                                                                                   456 AGGATTCTGGGAAGTGCTCCTG-CCTGAGAGAACACTCAGGTCANAAGGAGGAAGAACA 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutherlai; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 594)
Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and
                                                                              156 GCTCTGAGGACAAAGTGCAGACTGGGACCTCAGCTGGGTCTGTGTGTCACAGGACACGT
                                                                                                                                                                             TICTAGCCCCCAGAGCCACCTCTGTCACCTTCCTGTTGGGCATCATCCCACCTTCCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  401 GGGCAGAGGGAGGAAGGACAGAGCAGACAGTCACAGCAGCCTTGACAAAACGTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/tissue_type="normal nasopharynx"
/clone lib="human nasopharynx"
/note="ESTs generated from a normal nasopharynx cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Transcriptional Gene Expression Profile of Human Nasopharynx
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
15.0%; Score 71; DB 6; Length 594;
Best Local Similarity 100.0%; Pred. No. 2.9e-08;
Matches 71; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GuangZhou 510060, China
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cancer Center
Sun Yat-sen University
651 DongFeng Road Bast, GuangZh
Tel: 86-1380-9770-743
Fax: 86-20-8775-4506
Email: yxzeng@gzsums.edu.cn.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CD709204.1 GI:32239834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished (2003)
Contact: YiXin Zeng
                                                                                                                                                                                                                                                                                                                                                                                                                          422 CAGA 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                      515 TAGA 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zeng, Y.
                                                        83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CD709204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                       ద
                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                          8
                      셤
                                                       ઠે
                                                                                g
                                                                                                                ઠે
                                                                                                                                                                            ò
                                                                                                                                                                                                   g
                                                                                                                                                                                                                              ठे
                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
```

```
CD708401 177 bp mRNA linear EST 25-JUN-2003 EST24928 human nasopharynx Homo sapiens CDNA, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST 25-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             458
                                                                                                                                                                                                             Enkary Optical Metazoa; Chordata; Craniata; Vertebrata; Euteleogtomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

( Dases 1 to 177)

Liu, X.-Q., Zhou, Y., Zhang, L.-J., Xu, H., Chen, H.-K., Pan, Z.-G. and Zeng, Y.-X.

Transcriptional Gene Expression Profile of Human Nasopharynx
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo gapiens
Bukaryotas, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 338)
Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 CCGGGGAGAGGAGGACGACAGACAGACAGACAGACAGCCAGCCTTGACAAACGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         399 CAGGGCAGAGGAGGAAGGACAGCAGACCAGACAGTCACAGCGAGCCTTGACAAAACGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/mol_type="mkNa"
/db_xrefe="texon:9606"
/tissue_type="normal nasopharynx"
/clone_lib="human nasopharynx"
/nore="ESTS generated from a normal nasopharynx"
library from southern Chinese"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Transcriptional Gene Expression Profile of Human Nasopharynx Unpublished (2003)
Contact: Yixin Zeng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CD685182 338 bp mRNA linear EST 25-
EST1702 human nasopharynx Homo sapiens cDNA, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 177;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sun Yat-Ben University
651 DongFeng Road Bast, GuangZhou 510060, China
7Fal: 86-1380-9770-743
Fax: 86-20-8775-4506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
14.8%; Score 69.8; DB 6;
Best Local Similarity 97.3%; Pred. No. 4.5e-08;
Matches 71; Conservative 0; Mismatches 2;
```

```
ALGUZB51
DKFZp686P1216_X1 686 (synonym: hlcc3) Homo sapiens cDNA clone
DKFZp686P1216_5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AU140869 PLACE4 Homo sapiens cDNA clone PLACE4000399 5', mRNA
                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Euthoria; Primates; Catarrhini; Hominidae; Homo. 1 (Dases 1 to 555)
Wambutt,R., Heubner,D., Mewes,W., Weil,B. and Wiemann,S.
Bry (Wambutt,R., Heubner,D., Mewes,H.W., Weil,B. and Wiemann,S.)
Contact: MIP8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mamaalia, Eutheria, Primatee; Catarrhini, Hominidae, Homo.

1 (Dases 1 to 787)
Ota,T., Suzuki,Y., Saito,K., Ishii,S., Yamamoto,J., Sugiyama,T., Nishikawa,T., NaKamura,Y., Sugano,S., Masuho,Y. and Ioogai,T. HRI human cDNA project (Ota,T., Suzuki,Y., Saito,K., Ishii,S., Yamamoto,J., Sugiyama,T., Nishikawa,T., Nakamura,Y., Sugano,S.,
                                                                                                                                                                                                                                                                                                                                                                                               This is the 5' sequence of the clone insert
Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
Research Center (DKPZ); Email s. Wiemann@dkfz- heidelberg.de;
sequenced by AGOWA (Berlin/Germany) within the cDNA sequencing
consortium of the German Genome Project.
No sl sequence available.
This clone (DKFZp686P1216) is available at the RZPD in Berlin.
Please contact the RZPD: Ressourcenzentrum, Heubnerweg 6, 14059
Berlin-Charlottenburg, GRRMANY; Email: clone@rzpd.de.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hlcc3)"
Site_1: SfiIA; Site_2: SfiIB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     403 GCAGAGGGAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GCAGAGGAGGAAGGAACAGCAGCAGACAGTCACAGCAGCCTTGACAAAAACGTTCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14.6%; Score 69; DB 1; Length 595;
100.0%; Pred. No. 1e-07;
tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone_lib="686 (synonym:
/note="Vector: pTriplEx2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="DKF2p686P1216"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /dev_stage="adult"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cDNA-collection"
                                                                                                                                                            AL602851.1 GI:15166357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GI:11002390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (human)
                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              69; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  463 AACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 AACTCAAGC 69
                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo gapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
Matches 69; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AU140869.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AU140869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                  DEFINITION
                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                 AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 10
AU140869
                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                         RESULT 9
AL602851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST 25-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                   458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 555)
                                                                                                                                                                                                                                                                                                                                                                               CAGGGCAGAGGAAGGACAGCAGACCAGACACCACACAGCCAGCCTTGACAAAACGTTC
                                                                                                                                                                                                                                                                                                                                                                                                            17 CCGGGGAGAGGAGGAAGGACAGCAGACAGACAGTCACAGCAGCACCTTGACAAAACGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17 CCGGGGGGGGGGGGAGGACGACCAGACAGCAGCACCTTCACAAAACGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGGGCAGAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                           /tissue_type="normal nasopharynx"
/clone_lib="human nasopharynx"
/note="ESTS generated from a normal nasopharynx cDNA
library from southern Chinese"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Liu, X.-Q., Zhou, Y., Zhang, L.-J., Xu, H., Chen, H.-K., Pan, Z.-G. Zeng, Y.-X.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="mRNA"
/db_xref="taxon:9606"
/tiseue_type="normal nasopharynx"
/clone_lib="human nasopharynx"
/note="ESTS generated from a normal nasopharynx cDNA
                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Transcriptional Gene Expression Profile of Human Nasopharynx
Unpublished (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CD691155 בביית אוזווו קס 555 pp וואנאא אבאופעה CD691155
EST7678 human nasopharynx Homo sapiens cDNA, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                               Length 338;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14.8%; Score 69.8; DB 6; Length 555; 97.3%; Pred. No. 6e-08; tive 0; Mismatches 2; Indel8
                                                                                                                                                                                                                                                                                                                                         Indels
651 DongFeng Road Bast, GuangZhou 510060, China
Tel: 86-1380-9770-743
Fax: 86-20-8775-4506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cancer Center.
Sun Yat-sen University
651 DongFeng Road East, GuangZhou 510060, China
Tel: 86-1380-9770-743
Fax: 86-20-8775-4506
Email: yxzeng@gzsums.edu.cn.
                                                                                                                                                                                                                                                                                               14.8%; Score 69.8; DB 6; 97.3%; Pred. No. 5.3e-08; tive 0; Mismatches 2;
                                                                                                  1. .338
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1. .555
/organism="Homo sapiens"
                                                          Email: yxzeng@gzsums.edu.cn.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CD691155.1 GI:32212598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: YiXin Zeng
Cancer Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGAACTCAAGC 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77 crecaacreaace 89
                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 71; Conserv
                                                                                                                                                                                                                                                                                                                    Local Similarity
Les 71; Conserv
                                                                                                                                                                                                                                                                                                                                                                                 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                              459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   77
                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                                                    Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 8
CD691155
                                                                               PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
```

ö

Gaps ö

```
mRNA sequence.
BM829043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
BM829043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CD686649 152-JUN-2003 552 bp mRNA linear EST 25-JUN-2003 EST3170 human nasopharynx Homo sapiens CDNA, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     262 AACTGAAAATAGAAGGGAAAAAAGAGGAGGACAAAAGAGGCAGAAATGAGAGGGGAGGG 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     322 GACAGAGGACACCTGAATAAAGACCACACCCATGACCCACGTGATGCTGAGAAGTACTCC 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           62 dacadadadercaccadecadaccarcacc----cardacccregaaadrecrec 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   382 TGCCCTAGGAAGAGACTCAGGGCAGAGGAAGGACGACAGCAGACCAGACAGTCACAGCA 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         114 recerredeageacercaecargaaagagaagaagaagaagaagaacagaaga 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Euthoria; Primates; Catarrhini; Hominidae; Homo. Liu, X.-Q., Zhou, Y., Zhang, L.-J., Xu, H., Chen, H.-K., Pan, Z.-G. and Zeng, Y.-X.
                                                                       Helix Research Institute
1532-3 Yana Kisarazu, Chiba 292-0812, Japan
1532-3 Yana Kisarazu, Chiba 292-0812, Japan
1532-3 Yana Kisarazu, Chiba 292-0812, Japan
1538-3-3975
Pax: 81-438-52-3986
Email: genomics@hri.co.jp
Email: genomics@hri.co.jp
HRI human cDNA project; 5. - & 3'-end one pass sequencing: Helix
Research Institute of Medical Science, University of Tokyo, and
Helix Research Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 AAATGTAGACAGAAGGGAGAAAAGGAAGAAGAGAGAAATGAGGGCAAAACTGAGAGGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Transcriptional Gene Expression Profile of Human Nasopharynx
Unpublished (2003)
Contact: YiXin Zeng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14.6%; Score 68.8; DB 1; Length 787;
llarity 61.9%; Pred. No. 1.2e-07;
Conservative 0; Mismatches 72; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sun Yat-sen University
551 DongFeng Road East, GuangZhou 510060, China
fel: 86-1380-9770-743
fel: 86-20-8775-4506
Email: yxzeng@gzsums.edu.cn.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             174 CCCTGACTACAGCATTCCTGGAGCCCAGGC 203
                                                                                                                                                                                                                                                                                                                                                              /clone="PLACE4000399"
/tissue type="placenta"
/clone [1b="PLACE4"
/note="Vector: pME18SFL3"
                                                                                                                                                                                                                                                                                  1. .787
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xrefe"taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               442 GCCTTGACAAAACGTTCCTGGAACTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CD686649
CD686649.1 GI:32203762
Masuho,Y., Isogai,T.)
Unpublished (2000)
Contact: Takao Isogai
Genomics Laboratory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cancer Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 130; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
CD686649
                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
```

요

셤 ઠે g

ઠ g

δ

```
/tissue_type="Ascites"
/cell_type="Epithelial"
/cell_type="Epithelial"
/cell_type="Epithelial"
/cell_line="X0V-601"
/lab_host="Toplop"
/clone_lib="S9SNU601"
/clone_lib="S9SNU601"
/notes="Organ: Stomach; Vector: pMEI8-FL3; Site_l: XhoI;
Site_2: XhoI; The poly (A)+ RNA was dephosphorylated with bacterial alkaline phosphatase (BAP) and then decapped with tabacco acid pyrophosphatase (TAP). The decapped intact mRNA was ligated with DNA-RNA linker including Silsite by treatment of T4 RNA ligase and the first strand cDNA was synthesized with Superscript II using Sfil site by treatment of T4 RNA ligase and the first strand cDNA was synthesized with Superscript II using Sfil oligo-dT primer. After first strand synthesis, RNA was degraded by NaOH treatment and cDNA was amplified by PCR reaction. The PCR products were digested with Sfil and cloned into DraIII - digested pMEI85-FL3 vector. The obtained cDNA vectors were used for transformation of competent cells E. coll TOplOf* by electroporation method. The cDNA libraries constructed by this method are full-length enriched cDNA library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EM829043 220 bp mRNA linear EST 06-MAR-2002
K-EST0101950 S9SNU601 Homo gapiene CDNA clone S9SNU601-52-B11 5',
                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 220) (Kim, N.S., Hahn, Y., Oh, J.H., Lee, J.Y., Ahn, H.Y., Chu, M.Y., Kim, M.R., Oh, K.J., Cheong, J.E., Sohn, H.Y., Kim, J.M., Park, H.S., Kim, S. and
                                                                                                                                                                                                                                                                                                                                                                                              11 TTATGGCCGGGGAAGAAGGACAGCAGACAGACACGTCACAGCAGCCTTCACAAAQGTT 70
                                                                                                                                                                                                                                                                                                                                                         398 TCAGGGCAGAGGGAAGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAAACGTT
                                                                                                                                                                                                                                                                                          Gaps
/tissue_type="normal nasopharynx"
/clone_lib="human nasopharynx"
/note="ESTS generated from a normal nasopharynx cDNA
library from southern Chinese"
                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Kim 'YS'C'

Contact: Kim 'YS'C'

Genome Research Center

Genome Research Institute of Bioscience & Biotechnology

S2 Eceun-dong Yuseong-gu, Daejeon 305-333, South Korea

Tel: +82-42-860-4470

Fax: +82-42-860-4409

Email: yongeungemail.kribb.re.kr

Plate: 52 row: B column: 11

High quality sequence stop: 220.
                                                                                                                                                                                                                   552;
                                                                                                                                                                                                                                                                                      4; Indels
                                                                                                                                                                                                                   Length
                                                                                                                                                                                                            14.3%; Score 67.6; DB 6; 94.6%; Pred. No. 2.4e-07; rative 0; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21C Frontier Korean EST Project 2001
Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="S9SNU601-52-B11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .220
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BM829043.1 GI:19185452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  458 CCTGGAACTCAAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTGGAACTCAAGC 84
                                                                                                                                                                                                 Query Match
Best Local Similarity 94.61
Matches 70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Bex="M"
```

ö

Gaps

ö

0; Indels

0; Mismatches

ద ò

```
67; Conservative
                                                                                                                                                                                                                                                                                                                                                          nRNA sequence.
                                                                                                                                       465 CTCAAGC 471
                                                                                                                                                                                 61 CTCAAGC 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                            RESULT 14
BM752482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
  Matches
                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                    VERSION :
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                        셤
                                                                                                                                                                                 8
                                                 ò
                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /call type="Epithelial"
/call_line="SNU-601"
/lab_note="Toplof"
/call_line="SNU-601"
/lab_note="Toplof"
/coll_line="SSNU-601"
/coll_line="SSNU-601"
/coll_line="SSNU-601"
/coll_line="SSNU-601"
/coll_line="SSNU-601"
/coll_line="SSNU-601"
/coll_line="SSNU-601"
/coll_organ: Stomach; Vector: pME18-FL3; Site_1: XhoI;
Site_2: XhoI; The poly (A)+ RNA was dephosphorylated with bacterial alkaline phosphatase (BAP) and then decapped with tabacco acid pyrophosphatase (BAP) and then decapped intact mRNA was ligated with bNA-RNA linker including Sfil site by treatment of T R RNA ligase and the first strand cDNA was synthesized with Superscript II using Sfil oligo-dT primer. After first strand synthesis, RNA was degraded by NaOH treatment and cDNA was amplified by PCR reaction. The PCR products were digosted with Sil and cloned into DraIII - digested pME185-FL3 vector. The obtained cDNA vectors were used for transformation of competent cells E. coll Toplof" by electroporation method. The CDNA libraries constructed by this method are full-length enriched CDNA library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
Homo sapiens
Homo sapiens
Bukaryota, Metazoa; Chordata, Craniata, Vertebrata, Euteleostomi,
Bukaryota, Meteria, Primates; Catarrhini, Hominidae, Homo.

I (bases 1 to 275)
Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R.,
Kim,Y.S.
                                                                                                                                                                                                                                                                                                                                                                                                    BM836430 275 bp mRNA linear EST 06-MAR-2002
K-EST0112089 S9SNU601 Homo sapiens cDNA clone S9SNU601-61-B06 5',
                                                                                           ö
                                                                                                                                          464
                                                                                                                                                                                      9
                                                                                                                                     405 AGAGGGAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAA
                                                                                                                                                                1 AGAGGGAGGAAGGAACAGAGAGACAGACAGACAGCAGCCTTGACAAAACGTTCCTGGAA
                                                                                             Gaps
                                                                                           .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Kim YS
Genome Research Center
Korea Research Center
Korea Research Listitute of Bioscience & Biotechnology
S2 Eceun-dong Yuseong-gu, Daejeon 305-333, South Korea
Tel: +82-42-860-4409
Fax: +82-42-860-4409
Email: yongwungemal.kribb.re.kr
Plate: 61 row: B column: 06
                                          14.2%; Score 67; DB 4; Length 220; ilarity 100.0%; Pred. No. 2.8e-07; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21C Frontier Korean EST Project 2001
Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="S9SNU601-61-B06"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           High quality sequence stop: 275.
Location/Qualifiers
1. .275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'tissue_type="Ascites"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BM836430.1 GI:19192839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /sex="M"
                                                                                                                                                                                                                                                                                                                                                                                                                                                        mRNA sequence.
                                                                                                                                                                                                                                465 CTCAAGC 471
                                                                                                                                                                                                                                                            CTCAAGC 67
                                          Query Match
Best Local Similarity
Matches 67; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BM836430
                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                     RESULT 13
BM836430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
ORIGIN
```

14.2%; Score 67; DB 4; Length 275; 100.0%; Pred. No. 2.9e-07;

Best Local Similarity

Query Match

```
Location/Qualifiers

1. -279

/ organism="Homo sapiens"

/ mol Lype="mRNA"

/ db Zref="reacon:9606"

/ clone="SobMu601-6-Bl0"

/ sex="m"

/ tispue_Type="Ascites"

/ cell Lype="Rsplop"

/ lab_Enst="roplop"

/ cell line="SNU-601"

/ lab_Enst="roplop"

/ cell line="SNU-601"

/ lab_Enst="roplop"

/ cell line="SNU-601"

/ lab_Enst="roplop"

/ lab_Enst="roplop"

/ cell line="SNU-601"

/ lab_Enst="roplop"

/ lab_Enst="roplop"

/ cell line="SNU-601"

/ lab_Enst="roplop"

/ l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BM752482 279 bp mRNA linear EST 04-MAR-2002
K-EST0029023 S9SNU601 Homo sapiens cDNA clone S9SNU601-6-B10 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. I, Dases I to 270; Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R., Oh,K.J., Cheong,J.E., Sohn,H.Y., Kim,J.M., Park,H.S., Kim,S. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      405 AGAGGAAGGAAGGACAGACAGACAGACAGCAGCCTTGACAAACGTTCCTGGAA 464
405 AGAGGAAGAAGGACAGCAGACCAGACAGTCACAGCCACTGACAAAACGTTCCTGGAA 464
                                                                      1 AGAGGGAGGAAGGACAGCAGACAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kim, Y.S.

21C Frontier Korean EST Project 2001
Unpublished (2002)
Contact: Kim YS
Genome Research Center
Korea Research Institute of Bioscience & Biotechnology
S2 Ecenn-dong Visecong-gu, Daejeon 305-333, South Korea
Tel: +82-42-860-4470
Fax: +82-42-860-4409
Email: yongsung@mall.kribb.re.kr
Plate: 6 row: B column: 10
High quality sequence stop: 279.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 279;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 14.2%; Score 67; DB 4; Length 279 Best Local Similarity 100.0%; Pred. No. 3e-07; Matches 67; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BM752482.1 GI:19082100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
```

Search completed: December 11, 2004, 08:48:04 Job time: 2960 secs

61 CTCAAGC 67

요

```
/done liber 1991/10...
//clone liber 1958NUGOI"
//clone liber 1958NUGOI"
//note="Organ: Stomach; Vector: pMEI8-FL3; Site_1: XhoI;
//site_2: XhoI; The poly (A)+ RNA was dephosphorylated with
bacterial alkaline phosphatase (BAP) and then decapped
with tabacco acid pyrophosphatase (TAP). The decapped
intact mRNA was ligated with DNA-RNA linker including Sfil
site by treatment of T4 RNA ligase and the first strand
cDNA was synthesized with Superscript II using Sfil
oligo-dT primer. After first strand synthesis, RNA was
degraded by NOOH treatment and cDNA was amplified by PCR
reaction. The PCR products were digested with Sfil and
cloned into DraIII- digested pMEI85-Fl3 vector. The
obtained cDNA vectors were used for transformation of
competent cells E. coli Topolof' by electroporation method.
The cDNA libraties constructed by this method are
full-length enriched cDNA library."
                                                                                                                                                                                                                                                 BM836104 355 bp mRNA linear EST 06-MAR-2002 K-EST0111597 S9SNU601 Homo sapiens cDNA clone S9SNU601-65-F08 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 355)
Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R., Oh,K.J., Cheong,J.E., Sohn,H.Y., Kim,J.M., Park,H.S., Kim,S. and Kim,Y.S.
21C Frontier Korean EST Project 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      405 AGAGGAAGGAAGGACAGAGACAGACAGCAGCACCTTGACAAAAGGTTCCTGGAA 464
1 AGAGGGAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contract: Kin YS Conter
Contract: Kin YS
Genome Research Center
Korea Research Institute of Bioscience & Biotechnology
Korea Research Institute of Bioscience & Biotechnology
S2 Eceun-dong Yuseong-gu, Daejeon 305-333, South Korea
Tel: +82-42-860-4470
Fax: +82-42-860-4409
Fax: +82-42-860-4409
Fax: +82-42-860-6409
Fight quality sequence Scouns: 08
High quality sequence scop: 355.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
14.2%; Score 67; DB 4; Length 355;
Best Local Similarity 100.0%; Pred. No. 3.1e-07;
Matches 67; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="S9SNUG01-65-F08"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /tissue_type="Ascites"
/cell_type="Epithelial"
/cell_line="SNU-601"
/lab_host="Top10F'"
                                                                                                                                                                                                                                                                                                                                                                 BM836104.1 GI:19192513
                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished (2002)
                                                                                                                                                                                                                                                                                                         mRNA sequence.
BM836104
                                                     465 CTCAAGC 471
                                                                                                          61 CTCAAGC 67
                                                                                                                                                                                                                                                                                                                                                                                                  EST.
                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
COMMENT
                                                                                                                                                                                               RESULT 15
BM836104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
8
                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                     ठे
```

465 CTCAAGC 471